#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

SCREENING SITE INSPECTION REPORT

FOR

DUGGER ELECTRIC AND EQUIPMENT CO.

DUGGER, INDIANA

U.S. EPA ID: IND984894808

SEPTEMBER 9, 1991

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Signature Page for

Dugger Electric and Equipment Co.

Dugger, Indiana

•	U.S.EPA ID: IND984894808
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#### SECTION I

#### INTRODUCTION

The Site Investigation Section of the Indiana Department of Environmental Management (IDEM) was given approval by the United States Environmental Protection Agency (U.S. EPA) to conduct a Screening Site Inspection (SSI) of the Dugger Electric site, located in Dugger, Indiana, Sullivan County.

The site is a transformer refurbishing facility. More than 600 transformers are present on the gravel lot of the property.

A Preliminary Assessment (PA) was completed by IDEM in February 1991. The site received a high priority because PCB contaminated water was found to be flowing from a storm ditch underneath the site property to an open ditch off site. In addition, PCB contaminated oil was also discovered within an on-site cased well which may promote PCB groundwater contamination. This SSI will address potential PCB contamination to off-site environments through groundwater, surface water, soil, and air pathways.

The SSI was conducted by IDEM personnel on July 24 and 25, 1991. The SSI included the collection of soil, sediment, groundwater samples, and surface water samples.

Information contained within this report will be used to evaluate the site under the Revised Hazard Ranking System Model for possible inclusion on the National Priorities List (NPL) of hazardous waste sites.

The purposes of an SSI have been stated by the State of Indiana in a directive outlining Pre-Remedial strategies. The directive states that all sites selected to receive a screening SI are chosen to 1) collect additional data beyond the PA to assist in the development of an HRS (Hazard Ranking System) score, 2) establish priorities among sites most likely to qualify for

the NPL (National Priorities List), and 3) identify the most critical data requirements for the expanded SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the HRS score and other technical judgement factors, the site will then either be designated as NFRAP, (no further remedial action planned), or carried forward as an NPL listing candidate. An expanded SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA (Resource Conservation and Recovery Act).... Sites that are designated NFRAP, or deferred to other statutes are not candidates for an expanded SI.

The expanded SI will address all the data requirement of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive an expanded SI (U.S. EPA 1988).

#### SECTION II

#### SITE BACKGROUND

#### 2.1 Introduction

This section includes information obtained from the Preliminary Assessment (PA), the SSI work plan, site representative interviews, IDEM files, and the potential hazardous waste site SI report (EPA Form 2070-13).

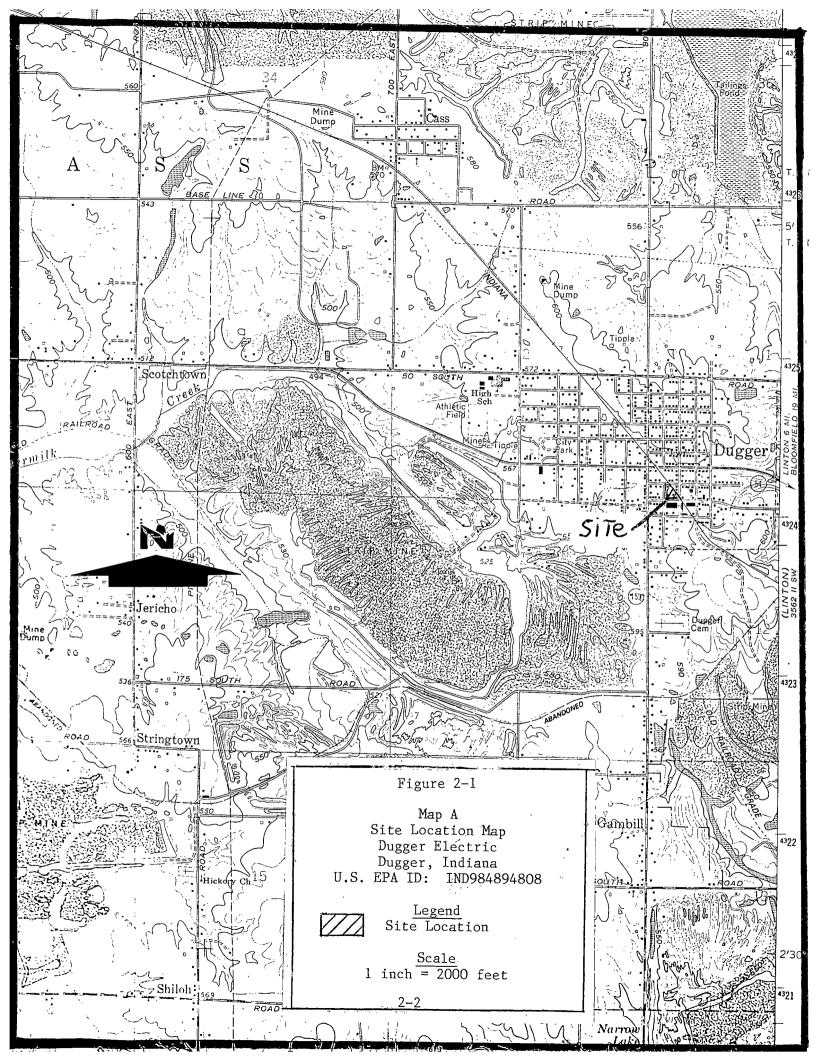
#### 2.2 Site Description

The site is located on Main Street within the city of Dugger, Indiana. The area covered by this site is approximately one acre located in Township 7 N, Range 8 W, section 1 (southwest quarter of the southwest quarter, of the southwest quarter). The site is shown on the Dugger Quadrangle, U.S.G.S. Topographic Map. The site lies in the center of Dugger Indiana. Dugger Electric is bounded to the north by an open field and the Indiana Railroad, to the east by the Indiana Railroad, to the south by Main Street and to the west by First Street.

Dugger Electric is comprised primarily by a gravel lot which borders the northern sectors of the plant building. The topography of the site is relatively flat with a slight grade to the west. Refer to Map A (Figure 2-1) for a topographic site location.

#### 2.3 Site History

From the mid 1920's to about 1950 the site was owned by Mr. Ohm who operated an electrical business. Although the basic operations of Mr. Ohm's activities is unknown, it is assumed that he dealt with the sale, repair and/or resale of new and used electrical equipment (i.e. transformers, capacitors, motors, etc.).



In the early 1950's the site was bought by Mr. Bill Hunley. Mr. Hunley continued the business and dealt in about the same type of activities as Mr. Ohm (buy and sell electrical equipment, replace transformer bushings, rewind electric motors, painting transformers, etc.).

In the mid 1980's the site was given to Mr. Robert Hunley, Bill Hunley's son, who conducted the same line of work as his father.

On March 22, 1990, Office of Environmental Response (OER) of the Indiana Department of Environmental Management responded to an initial incident at this site. Water with a visible oil sheen was lowing from a storm ditch which runs underneath the site property to an open ditch. This ditch flows through the city of Dugger and empties into Dugger Lake. Over 600 transformers were observed on site.

During a sampling event conducted by IDEM, state clean-up section, sediment samples were obtained east (upgradient) and west (downgradient) of the Dugger Electric site within Dugger Ditch. The sampling was conducted on 5-30-90. Lab analysis revealed the upgradient and downgradient samples to have PCB concentration levels of .1 ppm and 10 ppm respectively. The upgradient low level PCB detection may be attributed to seasonal backflooding. In addition, on-site soil sampling results revealed a PCB concentration of 50 ppm. For additional information, refer to the Preliminary Assessment completed in February 1991.

Another sampling event conducted by IDEM, State Clean-up section occurred March 22, 1991. Two samples east of the site within a portion of Dugger Ditch were found to contain no detectable levels of PCBs suggesting that no PCB source up gradient to the Dugger Electric site exists. Refer to Appendix H concerning sample location, sample analysis, and laboratory quality control memorandum.

Dugger Electric was notified by an August 9, 1991 letter that the 60-day moratorium for negotiations for an RI/RS had ended. IDEM is coordinating with ABB Environmental in development of a work plan to conduct an RI/FS. The projected date for completion of a draft work plan is October 3, 1991.

On August 15, 1991, 76 PCB-contaminated transformers were removed from the site for disposal at S.D. Myers in Akron, Ohio. Approximately 600 transformers remain at the site.

Dugger Electric is currently involved in negotiations with IDEM concerning an agreed order for an immediate removal of the transformers. The deadline for negotiations is August 21, 1991.

#### SECTION III

## SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

#### 3.1 Introduction

This section outlines the procedures and data gathering during the SSI at the Dugger Electric and Equipment Company. The subsections describe the site representative interview, reconnaissance survey, sampling procedures, and other observations.

#### 3.2 Site Representative Interview

In January, Mark Jaworski, Project Manager, and Mr. Robert Blaesing, Environmental Scientist met with Mr. Robert Hunley of Dugger Electric. A second interview was conducted on July 25, 1991 with Mark Jaworski, Pat Austin, Chemist for IDEM, and Mr. Robert Hunley.

#### 3.3 Reconnaissance Inspection

Following the meeting on July 25, 1991, IDEM's field team walked the property and established on-site sample locations for water, soils, and sediments. Sample locations offering the best opportunity to assess the potential for off-site and background soil and water sample locations were established to evaluate the environmental impact from the Dugger Electric site.

#### 3.4 Inspection Observations

Inspection of the site revealed the following observations:

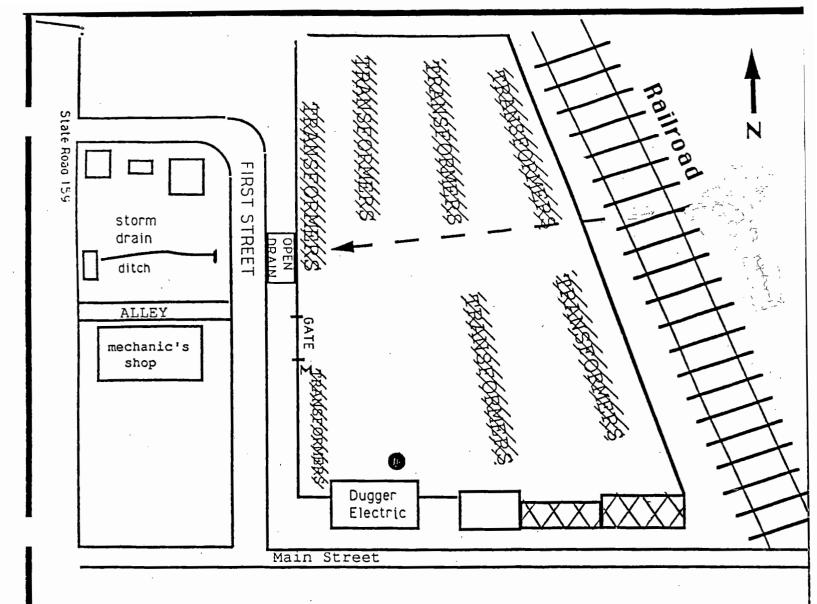
- A. The area behind the plant building is fenced and graveled.
- B. Over 600 transformers of various sizes and shapes exist on the gravel area.
- C. An on site cased well is located in the south center sector of the gravel area.
- D. A storm drain is present under the gravel area.
- E. Numerous unused and used transformer bushing and other miscellaneous electrical debris are situated on the southern sector of the gravel area.
- F. Drums containing the bailed oil from the on site cased hole are present and sealed.
- G. A fence has been constructed around a small portion of the storm drain outlet located 50-75 feet west of the Dugger Electric site.

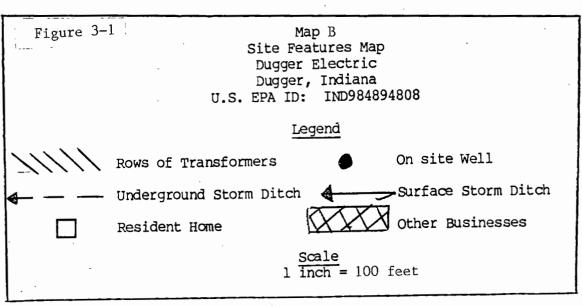
Map B, a Site Features Map (Figure 3-1) can be found on page 3-3.

#### 3.5 Sampling Procedures and Collection

Samples were collected by IDEM personnel at locations selected during the reconnaissance inspection to determine whether contaminants as outlined by the Indiana Site Investigation Target Analyte List (ISITAL) were present at the site. The ISITAL contaminants along with corresponding quantitation/detection limits are provided in Appendix D.

A total of 18 samples including trip blanks and were collected in conjunction with the Dugger Electric and Equipment SSI. Samples S712 through S733 were obtained except for samples S718 through S721. Water sample S712 was a trip blank, sample set S714/S715 was a duplicate water sample while sample set S727/S728 was a duplicate soil sample.





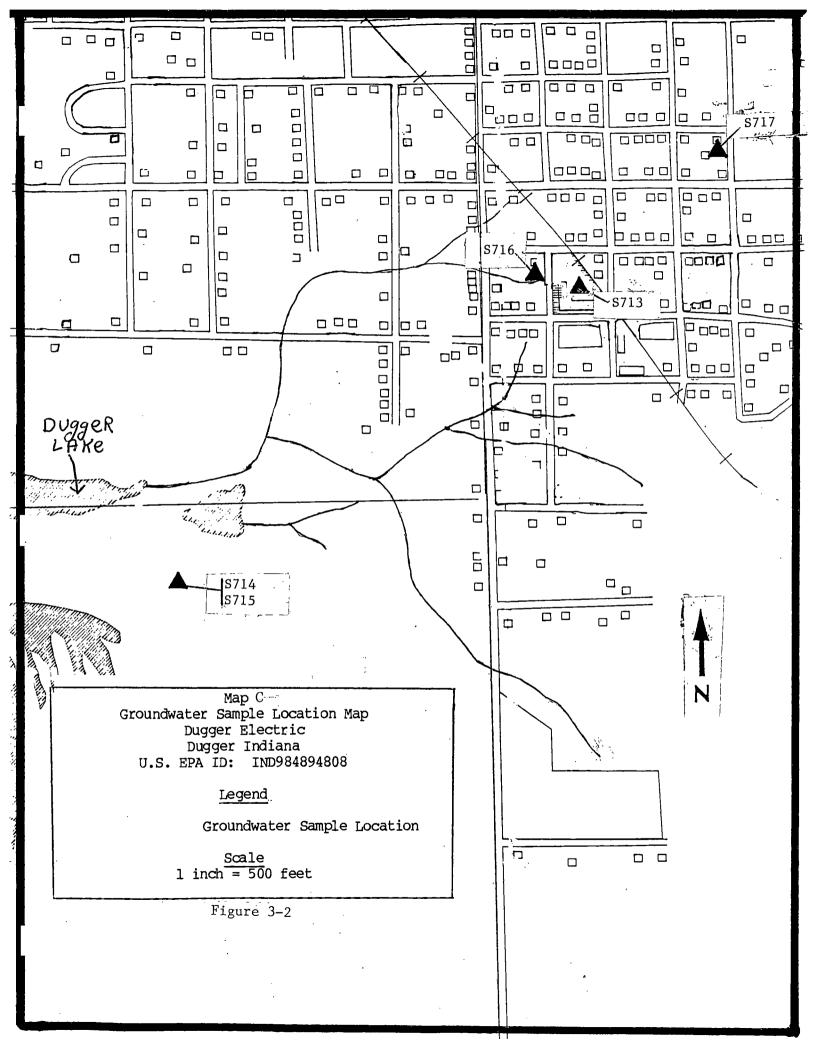
The following tables depicts the sample identification number, location of sample, and any comments concerning each sample.

#### Groundwater

Sample ID	Location	Comments
S712	IDEM Bradbury Office	Trip Blank
S713	On site cased well	Oil-light to dark green with a slight tan tint aromatic slight water with sample approx. 50 ft deep
S714	IDEM monitoring well #2 located at the southeast sector of Dugger Lake	clear somewhat murky colorless, no odor
S715	Duplicate of S714	Duplicate of S714
S716	Loyd Pirtle P.O. Box 222 Dugger, IN 47848	Open dug well, clear odorless
S717	David Daviess Box 376 Dugger, IN 47848	Clear, odorless; dug well

The groundwater well sampling locations were chosen because of their proximity to the site and the potential groundwater flow. The locations were selected so that the potential effect on groundwater quality could be evaluated. Refer to Map C (Figure 3-2) on page 3-5 for a map location of each groundwater well sample.

Groundwater well samples S716 were obtained from dug wells and water was obtained by bailing. Groundwater sample S717 was also from a dug well but obtained by a surface hand pump.



The water was allowed to discharge for 15 minutes from the hand pump before samples were collected to ensure that the sample sources had been purged of standing water. Water samples S713, S714 and S715 were obtained from wells at depths between 25 and 50 feet. Water from these two wells were obtained by bailing. The wells were purged according to IDEM protocol before the sample was taken.

As directed by U.S. EPA, all residential well samples were analyzed for TCL compounds and TAL analytes.

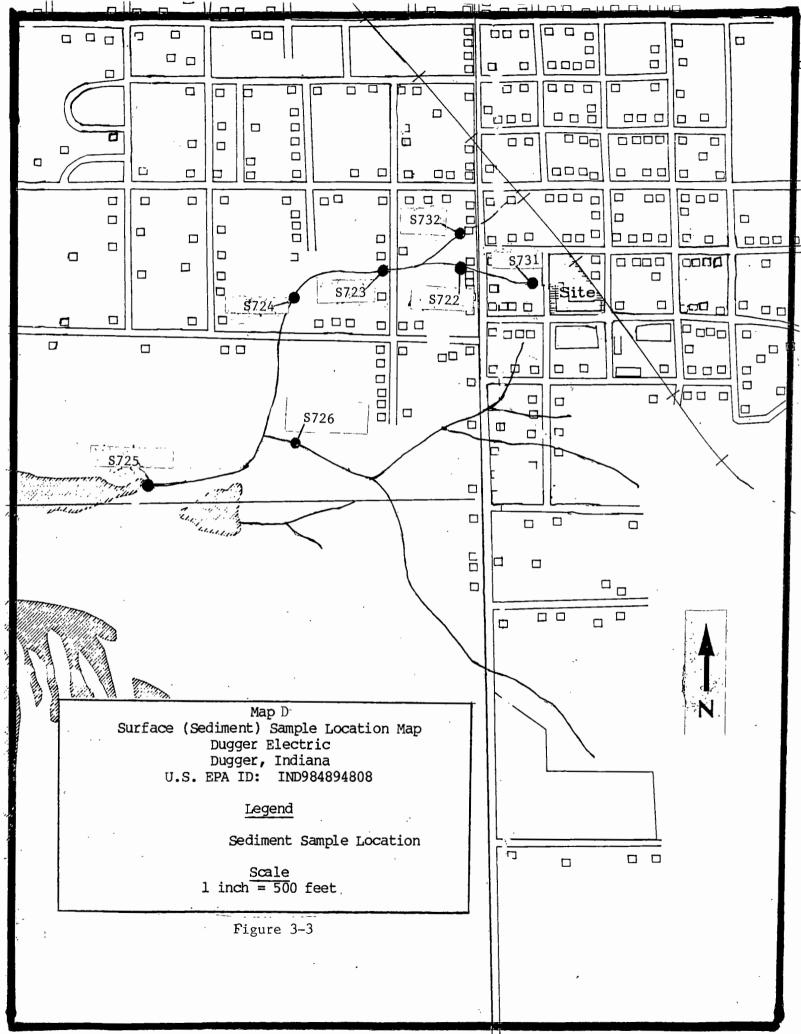
#### Sediment Samples

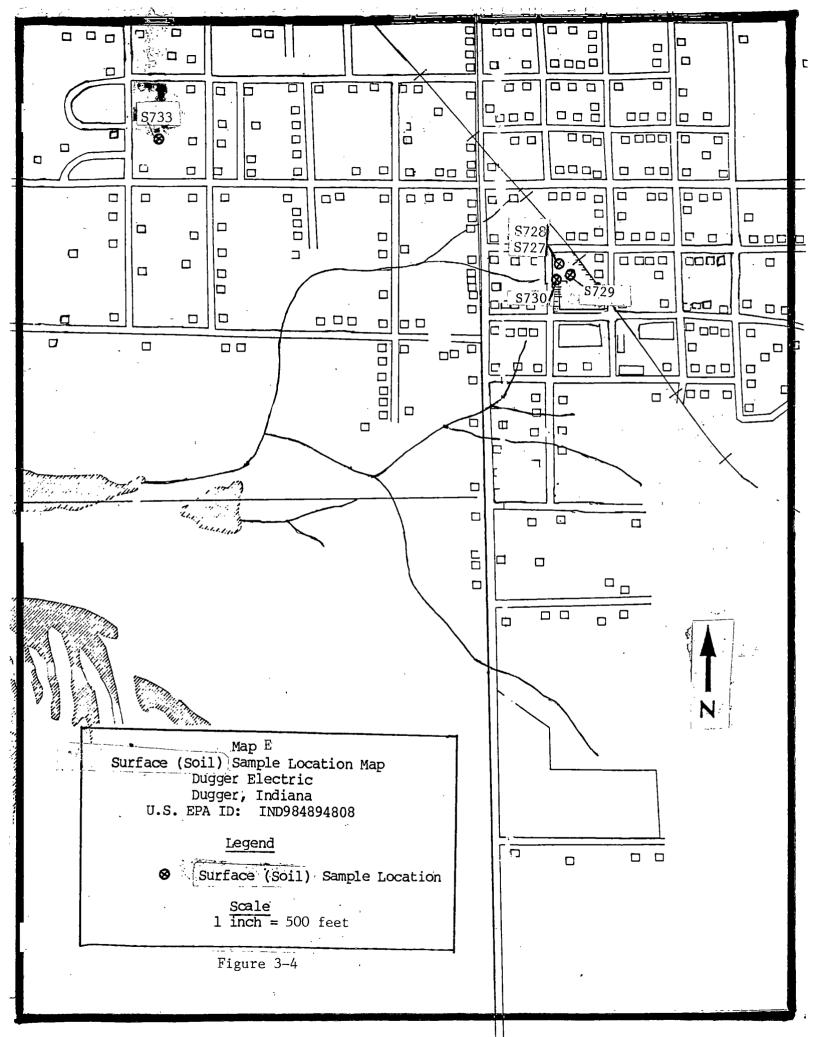
Sample ID	Location	Comments
S722	Dugger Ditch, less than 200 ft. from residential homes, approx. 450 west of	Gray-black, muddy, sandy very gravely
S723	Dugger Ditch; 30 ft. west of Mason Street	Muddy ground, dark gray-brown
S724	Dugger Ditch; 125 ft. north of Mason Street	Clayey, brown to gray, silty, slightly sandy
S725	Dugger Ditch located approx. 60 ft. from the inlet of Dugger Lake	Brown gray, silty soil, organic matter, slightly sandy
S726	Southern most tributary to Dugger Ditch; approx. 150 ft. from the confluence material	Medium brown, sandy, moist, somewhat silty, organic
s731	Dugger Ditch at outfall on west side of 1st Street; within the fenced in area	Wet, organic, sandy mud, dark gray to black
S732	Northern Tributary of Dugger Ditch; north of S722, west of pizza restaurant	Background Dugger Ditch sample-dark gray, very sandy, some gravel, slightly organic

Sediment samples were obtained using a plastic scoop. The plastic scoop was used to obtain sediment material from Dugger Ditch. The material on the scoop was directly transferred into the sample jar by hand. Latex surgical gloves were worn and discarded between the collection of each sample. A new plastic scoop was used for each sediment sample. Refer to Figure 3-3 (Map D) on page 3-8 for a location of each sediment sample. As addressed in Part II (page 2-3) of this report, previous sampling by IDEM, State Clean-up section revealed significant PCBs on the Dugger Electric site, PCBs in Dugger Ditch downgradient to the site, and trace amounts of PCBs east of the site (upgradient). This information suggests that PCBs were emanating from the site and no significant sources exist east of the site. Therefore no sample east of the site was taken.

#### Soil Sample

Sample ID	Location	Comment
S727	On-site soil sample 15 feet east of west fence line; in between transformers	7 inch depth, brownish gray organic, slt. sandy, mainly silt size particles
S728	Duplicate of S727	Duplicate of S727
S729	Mid site on-site soil sample; 45 feet west of east fence line, 160 feet south of north fence line; next to transformer #8047473	10" depth, gray to tan sand and limestone gravel, slight oil smell
S730	On site soil sample, 4 feet east of west fence line and north of west fence gate at the first row of transformers	highly
S733	Center sector of Dugger Park, ea of tennis court	st Tan, organic clay





Surface soil samples were obtained using a plastic scoop. The scoop was used to obtain soil material from the surface directly into the jar. Latex surgical gloves were worn and discarded between the collection of each sample. Refer to Figure 3-4 (Map E) on page 3-9 for a map location of each surface sample.

Standard documentation procedures were adhered to during the collection of all surface, groundwater, and sediment samples. Decontamination procedures included the scrubbing of all equipment (e.g., auger, trowels, bowls, spoons) with a solution of Alconox detergent and distilled water, and triple rinsing the equipment with distilled water before the collection of each sample.

#### SECTION IV

#### ANALYTICAL RESULTS

#### 4.1 Introduction

This section includes results of chemical analysis of IDEM-collected surface soil samples, subsurface soil samples, sediment samples, and groundwater samples for ISITAL contaminants. All ISITAL concentrations for each sample can be found in Appendix D.

#### 4.2 Sample Analysis

The laboratory results from sampling of the Dugger Electric site have been determined to be acceptable for use and meet the criteria contain in the Indiana Quality Assurance Project Plan (QAPP) (refer to Analytical Results on page 4-4).

All soil and sediment samples obtained were analyzed for total solids, routine and non-routine metals, and PCBs. All metals within soils were found to be within normal limits that can be found throughout the State of Indiana. Although soil/sediment samples (S727, S728, S730, S722, and S723) revealed low concentrations of mercury (.34 mg/1/.28 mg/1, .16 mg/1, .063 mg/1, and .071 mg/1 respectively) it should be noted that these results were near the detection levels for mercury. Even though the above mentioned samples were the only samples in which mercury was detected, the concentration levels were within the common range found within natural soils (U.S. EPA Office of Solid Waste and Emergency Response, SW-874, April 1983, page 273, Table 6.46). An elevated level of lead was detected in sample S730 (350 mg/1) but this level is considered estimated because of poor field duplication. Field duplicate samples are used to establish the representativeness of sampling, in

consideration of sampling error and/or sample heterogeneity. Other analytes in which field duplicates do not compare well and are considered estimated in soils are aluminum, chromium, tin, and zinc. All other analytes compare well in the field duplicates for soils.

All PCB results are semiquantitative for soil and water samples. Low levels of Aroclor 1260 were found in soil samples S726, S729, S730 and sediment sample S731 (.56 mg/l, 3.3 mg/l, 2.9 mg/l, and .35 mg/l respectively).

Aroclor 1260 found in sample S722 could not be confirmed because of poor confirmatory peak resolution. Thus the .26 mg/l of PCB (Aroclor 1260) detected in sample S722 is unusable. The detection of PCBs in soil samples S729, S730, and sediment sample S731 indicates that PCBs have migrated from the Dugger Electric site into Dugger Ditch. Since PCBs were detected in sediment sample S726, (a southern tributary of Dugger Ditch - refer to Map D), and no PCBs were detected in Samples S723 and S724 (upstream from the southern tributary), it appears that there may be an additional source of PCB contamination within the Dugger Ditch drainage system.

The following metals in water samples are estimates: Fe, due to poor field duplication; Cd, due to initial calibration blank contamination; and Cu and Zn, due to preparation blank contamination. Oil sample S713's inorganic estimates include: Na, Cu, and Ag, due to preparation blank contamination; and Sb, Pb, Ni and Zn, due to poor matrix spike recoveries.

VOA results were in control. VOAs were detected in oil sample S713. PCB results are, in general, estimated. The majority of QC checks throughout the analyses were in control. However, the laboratory experienced matrix spike/matrix spike duplicate difficulties in all matrices. This biases the quantitation of all PCBs.

Sample S713 is the only groundwater sample in which PCBs were detected. A concentration level of PCB (Aroclor 1260) was found to be 940 mg/l in that sample. Although the laboratory has confirmed the existence of PCBs in sample S713 qualitively, the 940 mg/l value is considered an estimate due to matrix spike/matrix spike duplicate difficulties. Water sample S713 was obtained from an approximate 50 foot deep cased water well located on the Dugger Electric site. The S713 sample was obtained by bailing. A greenish brown oil encompassed approximately 90% of the fluid sample. The rest of the sample was comprised with water.

VOAs were also detected in sample S713. As previously stated, VOA results were in control. The following VOAs and their corresponding concentration levels are as follows:

<u>VOA</u>	Concentration Level
Ethyl-Benzene	190,000 ug/l
Toluene	73,000 ug/l
Xylene	1,100,000 ug/1

No VOAs or any PCBs were detected in any of the groundwater samples obtained except in the S713 water sample. All metal concentrations within the residential wells were within normal limits that can be found throughout the state.

To: Mark Jaworski

Site Investigation

From: Pat Austin PA 9-24-91

Site Investigation

Re: Review of laboratory results for Dugger Electric site. Sample #s

S712-S733 (EMS A234843-860), collected 7-24 and 7-25-91.

I have reviewed the attached laboratory results and have determined that they are acceptable for use. These results have been evaluated for the quality criteria contained in the Indiana Quality Assurance Project Plan. Any exceptions to the acceptance of this data will be identified in this memorandum and should remain attached to the original results.

Date: 9-23-91

The following analyses were performed by the laboratory as requested: metals and PCBs in soil; metals, VOAs and PCBs in waters and oil.

The following inorganic analytes among soils are estimates: Be, due to continuing calibration blank contamination; Sb and Ti, due to poor matrix spike recoveries; and Al, Cr, Pb, Sn and Zn, due to poor field duplication. Among waters, the following inorganics are estimates: Fe, due to poor field duplication; Cd, due to initial calibration blank contamination; and Cu and Zn, due to preparation blank contamination. Oil sample S713's inorganic estimates include: Na, Cu, and Ag, due to preparation blank contamination; and Sb, Pb, Ni and Zn, due to poor matrix spike recoveries.

VOA results were in control. VOAs were detected in oil sample S713. PCB results are, in general, estimated. The majority of QC checks throughout the analyses were in control. However, the laboratory experienced matrix spike/matrix spike duplicate difficulties in all matrices. This biases the quantitation of all PCBs. Separately, poor confirmatory peak resolution leads to unusable Aroclor 1260 results for sediment sample S722.

Field duplicate samples are used to establish the representativeness of sampling, in consideration of sampling error and/or sample heterogeneity. The duplicates compare well, except for those noted above.

No unestimated inorganics were detected in soils above either background or levels commonly found in soils. Pb was elevated in soil sample S730, but this value is estimated. Estimated elevated levels of Fe, Cu and Zn were found in oil sample S713. Elevated levels of Pb, Ba, Ni and Al were found in oil sample S713. Estimated elevated levels of Fe were found in all well samples.

Fairly high levels of ethylbenzene, toluene, and total xylenes were found in oil sample S713. All PCB results are semiquantitative. An apparently high level of Aroclor 1260 was found in S713. Low levels of Aroclor 1260 were found in soil samples S726, S729, S730 and sediment sample S731. Aroclor 1260 found in S722 could not be confirmed and hence is not usable.

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A234844 \$712	Trip Blank	NR								·
A237673/C713	MW-1			11				10		
A234845	MW-2				:			0.039		
A234846	Dupe MW-2							0.043		
17234447 C716	RW-1			0.0031				0.038	:	
A234848 5717	RW-Z							0.016		
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A234849 5722	Sed-1	68	4.0	92			0.063	66	1.1	./2
A234850	Sed2	68	6.0	81			0.071	220.	1.6	16
14234821/C231	sed-3	68	3.0	52				57	0.84	11
A234852	Sed-4.	65	2.8	42				58	0.80	11
A234853	sed-5	68	5.9	31	·			53	1.3	7.8
A234854	5011-1	89	14	140		1	0.34	160	1.0	13
A234865 5728	1 Soil - 1	89	17	94			0.28	140	1.1	7.3
A234856/ 5729	5011-2	90	5.7	44				59	0.98	8.7
A234857/5770	50:1-3	89	12	350	2.0		0.16	120	2.6	9.1 :
A 234 858	5e Q - 6	66	8.5	99	0.88		0.11	88	1.7	9.8
A234859/	Background Sed/Soil	80	12	57	1.4			81	1.9	12
A234860	Backgrd	95		14)	2.71		1	91	0.57	6.6

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## SITE, INVESTIGATION SECTION

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	[				Millig	rams/L	iter	•		
Sample Number	Type &	N:	Ag	$A_1$	56	Be	Co	cu	v	Z
Lab / IDEM	ID #		•		·	,				
Notes:										
A234847 5712	Trip Blank	0.012						0.024		0.032
A234843/ 5713	MW-1	1.7		3.0			• •	2.5		6.6
A234845	MW-2			0.50				0.021	·	0.064
A234846	Dupe MW-2			0.62	·			0.029		0.076
A234847	RW-1	0.036		0.35				0.026		0.56
A234848/	RW-2	0.016		0.20				0.023		0.086
1			٠,							
A234849/ 5722	Sed-1	10	1.0	4500		1.6	4.6	16	13	120
A234850	sed2	11		5400		1.7	15	18	22	160
A234851/ 5724	5ed - 3	9.1	·	4500		1.3	4.8	10	. 12	86
A234852	sed-4	-11	,	7100		1.3	5.6	9.2	15	72
A234853/ 5726	Sed-5	10		5600		1.3	5-6	8.8	14	28
A234854/5727	So: 1-1	14		8000		1.3	8.0	28	19	110
A234855/5728	Dupe Soil-1	9.6		4700		1.8	6.5	31	.15	78
A234856/ (7)9	5011-2	9.1		6700		1.3	5.0	14	18	67
A234857	50:1-3	13	1.0	4500		1.8	4.5	76	14	290
A234858	Sed-6	12:		4000		1.8	5.7	37	16	230
A234859	Backgrd -Sed	17		3100	·	1-8	5.2	17	18:	350
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Lab / IDEM	ID #			0						
otes:						***********				
234844 5712	Trip Blank									/
234843, 5713	MW-1	30	7.9				31	·		
234845, 5714	MW-2	13	0.43	6.4	0.10	2.7	180	0.011	0.012	
5715	NW-2	13	1.0	6.6	0.11	3.2	190	0.013	0.12	
1234847	RW-I	100	0.92	66	0.47	3.1	87		0.39	
5716 234848 5717	RW-2	68	2.6	50	0.41	1.3	33	0.028	0.11	
1	I NW Z	00	7.0						5	
1234849 5722	Sed1	17000	12000	2100	490	440	100	3.3	25	5
5723	Sed-2	17000	27000	2600	2000	450	90	3.4	24	5
1234851/	Sed -3	27000	10000	2900	320	450	67	4.4	29	3
234852 5725	Sed-4	7700	12.000	2000	440	620	68	6.7	13	
234853/		1	7		310		42	5.9	7.4	1
1234854/ 5727	Sed-5	1400	22000	960		470				111
5728	Soil-1	46000		1800	1100	740	49	5.6		16.0
234856, 5729	50:1-1	66000	11000	1500	930	470	35	2.5	52	***
5729	5011-2	66000	13000	2300	290	490	65	5.4	71	6.5
5730	50:1-3	82000	11000	3200	280	700	98	4.7	71	
1234858/5731	Sed-6 Backgrd	15000	17000	2100	1100	440	99	3.1	29	26
1234859	sed.	38000	17000	1700	3000	350	220	2-4	41	
234860/	Backgod.	630	8700	800	1100	410		3.6	3.5	

### VOLATILE ORGANIC COMPOUNDS

ite Name: Dug						By:_ <b>F</b>		-		
ate Sampled: Z	1 /24/91	Date	Report	:ed: <u>7</u>	16191	Lab:	EM.	22		<b>-</b>
	· ·	`				Micro	grams/	Liter		
		Suro- gate Rec-	I.S. area summar	, A. C.	٦	(Tome!)				
Sample Number	Type &	overy	Summar	EThyl - benze	Toluene	ene				
Lab / IDEM	ID #	ave%R		m L-v	7	xylen				
Notes:				············						
A234844/ 5712	Taip Blank	ok	0K							
A234 843/ 5713	MW-1	Δ	"	190000	73000	1100000				
A234845j 5714	Mw-2	OK	le							
A234849	Dupe MW-2	,,	ic'							
A234847	RW-1	"	"							
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Lab / IDEM	ID#	GATES		1016	1221	1232	1242	1248	1254	1260
IMITS OF DETECTION	<b>→</b> →	AV %R	5			·				
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234843, 2713										940
4234845 5714	MW-1	DCB &		-				<del>  .                                     </del>		1770
5714	MW-2 Durl	OR	<u>".</u>							<del> </del>
4234846 5715	MW-2	40		<del> </del>		ļ	<u> </u>			<del> </del>
A234847 S716	RWY	le	· .							
3716 A234848 5717	RW-2	11				•				
/							•			
A234849 5722	c: 0 .		-	<del>                                     </del>					<del> </del>	
5722 A234850/ 5723	Sed-1									0.2
5723 A224851.	sed2	"		-			<del> </del> -			-
A234851, 5724	Sed -3	4	<u> </u>			<b>-</b>	ļ		ļ	
A234852, 5725	Sed-4	4								
A234853/	sed-5	er								0.5
A234854 5727	5011-1	"						1		1
A234855, S728	Dupe	"			<del> </del>	<del>                                     </del>		-	<u> </u>	
A224.856, S729	1-1102				<del> </del>	<del> </del>				-
4224.967	50:1-2	ai .	<del> </del>			- <del> </del>	<del> </del>			3.3
A234857 5730	Soil-3	"	1				<u> </u>			2.9
A234858/5731	Sed-6	1.		1	-	1	ļ			0.3
A23 4859	Backgrd Sed.	1,								
A234860, S733	Backgrd-	1,,	-		<del>-</del>					
2733	50:1	<del>                                     </del>	-			<del></del>	-	-	-	+
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#### SECTION V

#### DISCUSSION OF MIGRATION PATHWAYS

#### 5.1 Introduction

Potential migration pathways for contaminants emanating from Dugger Electric site are discussed in this section. Potential contaminant migration through groundwater, surface water (including Drinking Threat, Human Food Chain Threat, and Environmental Threat), soil and air exposure is discussed.

#### 5.2 Groundwater

Groundwater at the site is available within the discontinuous and unconsolidated sand and gravel deposits within the glacial till. Groundwater can also be found within the bedrock (sandstones) and within the coal seams and within the voids of abandoned underground coal mines. The unconsolidated sand, and sand and gravel deposits are the principal aquifers of concern.

The unconsolidated deposits occur between 20 to 50 feet, depending upon the location in the county, are 2-10 feet thick, and are very permeable having an average hydraulic conductivity of  $10^{-4}$  cm/sec to  $10^{-3}$  cm/sec. These aquifers are separated by clay, silt, and loess (till). The till acts as a semi-permeable barrier between the aquifers. The semi-permeable confining layer, the till and loess, has an assumed conductivity of  $10^{-6}$  X  $10^{-8}$  cm/sec. The bedrock has a lower primary permeability, but fractures in the rock provide pathways for water movement. Solution features in limestone which may be present within the area can increase permeability significantly.

Coal seams also are relatively permeable. The most important pathway for groundwater movement in the area is the maze of underground mine shafts and tunnels that crisscross the area. These conduits can move water very rapidly compared to the natural flow through porous or fractured media. The flow direction from the site is probably to the southwest toward Dugger Lake. However, the impact of present and past mining activities can alter the flow direction. Refer to the Geological Assessment (Appendix E) concerning additional aquifer characteristics. In addition, the runoff and permeability characteristics of the soil material present could allow contaminants from the Dugger Electric site to slowly penetrate the semi-permeable layers of drift and enter into the underlying aquifer(s).

The entire population of Dugger, approximately 1,000 people, is hooked up to the Linton Municipal water system. However, after driving through the town and talking to several residents it was discovered that alleast a quarter of the people still have private wells on their property. These wells are used for human drinking water and gardening purposes. These wells are used exclusively for drinking purposes when the Linton Municipal water system is interupted due to maintenance or failure. The maintenance or failure events occur 3 to 4 times a year. Refer to the original Preliminary Assessment concerning other drinking water activities from these private wells. The Linton Municipal Water Works obtains water from several groundwater wells. These wells are located over seven miles away to the east to southeast of the site.

There are two residential wells located within 200 feet of the Dugger Electric site. These two wells (20 to 50 feet deep) are located to the west of the site within the direction of groundwater flow. Residential water sample S716, obtained from a dug well located 50 feet west of the Dugger

Electric site, and all other off-site well samples, revealed no PCB, VOA, or metal contamination.

As addressed in Part IV, well sample S713, obtained from a 50 foot cased well located on the Dugger Electric site, revealed elevated levels of the following substances:

Substance	Concentration Level				
PCB (Aroclor 1260)	940 mg/l (estimated)				
Ethyl Benzene	190,000 ug/l				
Toluene	73,000 ug/l				
Xylene	1,100,000 ug/1				

The S713 sample was an oil/water sample obtained from the on-site well by bailing. It should be noted that according to the State Clean Up Section of IDEM, past water/oil removal activities from the on-site well has not lowered the hydrostatic water level in the well. This observation suggest that the substances detected in the well are in direct contact with the underlying aquifer.

The Dugger Electric site has documented contamination of groundwater beneath the site. According to the Geological Assessment, the substances detected could migrate through the groundwater by way of the 20 to 50 feet of unconsolidated material above the bedrock or by way of mine tunnels which are numerous in the area.

#### 5.3 Surface Water

Surface water drainage from the site is by way of a ditch (referred to as

Dugger Ditch) that flows from east to west across the site. Numerous storm drains on the site enhance the surface-water runoff into the ditch beneath the site. The ditch continues through the town of Dugger and discharges into Dugger Lake approximately 1500 feet west of the site. Flow in the ditch is intermittent. Dugger Lake is a final-cut impoundment lake in an old coal strip-mined area on the southwest side of Dugger.

Dugger Lake discharges into Buttermilk Creek. Buttermilk Creek flows into Busseron Creek approximately 7 miles west of Dugger Lake. The Dugger Electric site does not lie within a floodplain.

#### 5.3.1 Drinking Water Threat

As addressed in section 5.2, all residents within the 4 mile radius of the Dugger Electric site obtain drinking water from the Linton Municipal Water Works and from their private groundwater wells. There are no known surface water intakes located within the 4 mile radius of the Dugger Electric site that are being solely used as human drinking water sources.

Although no surface water intakes used as human drinking water sources, exist, it should be noted that Buttermilk Creek and Busseron Creek is a potential sources of drinking water for cattle throughout this area.

Dugger ditch which captures the majority of surface drainage from the Dugger Electric site is not a potential source of drinking water for cattle due to the fact that the flow in the ditch is intermittent. Although the ditch is a direct migrational route for surface drainage into Dugger Lake, it should be noted that sample S731, obtained 100 feet west of the Dugger Electric site within Dugger ditch, was the only ditch sample in which PCBs were detected (.35 mg/l). No other sediment ditch sample (obtained downditch from sample S731) revealed PCBs (note that the PCB detection result of the

S722 sediment ditch sample, obtained downditch from sample S731 is unusable due to poor quality control).

#### 5.3.2 Human Food Chain Threat

Dugger Lake, Buttermilk Creek, and Busseron Creek are primary fisheries within the 15 mile surface water pathway of the Dugger Electric site. Several people were observed fishing along the banks of Dugger Lake throughout the course of the SSI. As stated in 5.3.1, Dugger ditch is a direct migrational route for surface water drainage from the Dugger Electric site to Dugger Lake. Any substance which enters into the Dugger ditch may potentially flow into Dugger Lake. As also discussed in 5.3.1, PCBs were detected (.35 ug/1) in only one sediment sample (obtained approximately 100 feet west of the Dugger Electric site).

It should be noted that according to the Preliminary Assessment for the Dugger Electric site, a PCB fish consumption advisory was posted. The advisory was lifted in 1990 because PCB levels found in the fish samples were below health advisory limits. Since PCB migration from Dugger ditch to Dugger Lake (including Buttermilk Creek and Busseron Creek via Dugger Lake) may occur, it appears that the Human Food Chain may be threatened.

#### 5.3.3 Environmental Threat

The Indiana Department of Natural Resources - Division of Nature

Preserves - Heritage program has documented the sensitive environments and/or

endangered or threatened species within the area (refer to Sensitive

Environments Map Appendix G). Below in table form is the name of the

sensitive environment or endangered/threatened species and the status of the

environment or species. Note: The number associated with each

environment/species is a location area of the environment/species as located on the 15 mile Surface Water Pathway Map.

Location Number	Species/Environment	Status
1	Chrysopsis Villosa (plant)	Threatened
1	Taxidea Taxus (badger)	Threatened
1	Sistrurus Catenatus Catenatus	Threatened
	(Eastern Massasauga)	
1	Strophostyles Leiosperma	Threatened
	(Slick seed Wild Bean)	
Labeled on Map	Busseron Bottoms	Floodplain
Labeled on Map	Minnehaha State Fish and	State Land
	Wildlife Area	Designated for
		Wildlife or
		Game Management

Due to the fact that the sensitive environments/species are subject to elevated PCB concentrations (as addressed in the surface water sample analysis of Part IV, Part V section 5.3.1 and 5.3.2, of this report), it appears that these environments/species are threatened.

#### 5.4 Soil Exposure

Approximately 559 homes lie within 1/4 mile. Soil/sediment samples S731, S722, S732, S723, and S724 were obtained from individual properties (within Dugger ditch. Refer to Map D on page 3-8 for a sample location. Each sample

was collected on the residents' property less than 200 feet from the dwellings.

Sample S731 was the only residential soil/sediment sample in which PCBs were detected. A low level concentration of .35 mg/l of Aroclor 1260 was detected at this point. No other potentially hazardous substance was detected in any of the residential soil samples.

There are no schools or day care facilities within 200 feet of the Dugger Electric site. Dugger ditch and some of its tributaries appears to be the only overland migration route that might spread hazardous substances near residences south of the site. There are no confirmed reports or adverse health effects from on site or adjacent residents from soil contamination problems.

#### 5.5 Air

No air samples were taken. A strong oil odor was observed when and only when the oil/water (sample S713) was being bailed out of the on-site cased well. No other odors were observed. No on-site burning had recently occurred. Presently there are no reports of adverse health effects resulting from the migration of hazardous substances through the air.

### **HEALTH ASSESSMENT**

FOR

# DUGGER ELECTRIC EQUIPMENT COMPANY

SULLIVAN COUNTY DUGGER, INDIANA

February 1992

#### SUMMARY

The Dugger Electric facility in the City of Dugger, Sullivan County, Indiana, has been in operation since the 1920s. It has been accepting used transformers and other electrical equipment for reconditioning and possible resale. Environmental sampling was conducted on-site and off-site because of several reports of oil being discharged into an off-site drainage ditch and oil being burned on-site. The sampling revealed polychlorinated biphenyl (PCB) contamination on the Dugger Electric property, the adjoining drainage ditch, Dugger Lake, and the groundwater. PCBs are the major chemical of concern from the site. Oil burned at the site could have produced dioxin, dibenzofurans, and other byproducts of PCB oil combustion.

PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment. The manufacturing of PCBs was banned in the United States in October 1977 because of evidence that PCBs accumulate in the environment. Animal experiments have shown that some PCB mixtures produce adverse health effects that include liver damage, skin irritations, reproductive and developmental effects, and cancer. Human studies show that exposure to PCBs can cause irritations such as acne-like lesions and rashes, and has been associated with malignant melanoma in exposed workers.

There are several site-related potential exposure pathways for the public. The drainage ditch flows through the City of Dugger resulting in the potential for public exposure to contaminants. Some of the fish sampled from Dugger Lake were contaminated with PCBS. Because of the possible exposure through ingestion of PCB-contaminated fish by the public, there is a limited fish advisory for some species of fish in Dugger Lake. On-site workers may also be exposed to PCBs at levels of concern.

#### BACKGROUND

#### A. SITE DESCRIPTION AND HISTORY

The Dugger Electric site is located in Dugger, Sullivan County, Indiana in the middle of a residential/commercial area There are two parcels of land related to the site. (Figure 1). The first parcel is bounded by Main Street to the south, First Street to the west, an open field to the north, and a railroad track to the east. The second parcel of land lies south of the first parcel. It is bounded by Second Street to the west, Station Street to the south, Main Street to the north, and railroad tracks to the east. Together, these parcels occupy 2 to 3 acres of land. A drainage ditch originating from the site flows through the City of Dugger and discharges into Dugger Lake. Dugger Lake is approximately 1 mile away from the site. The facility has been operating since the 1920s as a reconditioner of used transformers and other electrical equipment. The site and the City of Dugger lie above abandoned underground coal mines.

Approximately 600 used transformers of various sizes are stored uncovered on the ground throughout the site. Many of the transformers are rusty and have oil stains around the drain valves. According to the owner, none of the transformers currently stored at the site contain PCBs. Steel drums and other miscellaneous electrical equipment are also scattered across the property. An 8-inch, steel-cased, drill hole is located just north of the Dugger Electric building. The drill hole is approximately 55 feet deep and contains both water and PCB-contaminated oil. A storm drain runs underneath the Dugger Electric site to the drainage ditch on the west side of the property. There have been numerous reports that oil was burned at the site (ABB Environmental Services, Final Work Plan).

Access to the site is restricted by a chain-link fence on the north, east, and west. There is a building located on the southwest corner of the property which is used by Dugger Electric to store transformers, electrical equipment, and miscellaneous parts.

A complaint was reported on March 27, 1990, to the Indiana Department of Environmental Management (IDEM) concerning oil flowing in a ditch leading from the site through the City of Dugger and discharging into Dugger Lake. The storm drainage ditch originates on the east side of the northern section (outside the fence) and flows below the train tracks and the site. The drain pipe runs below First Street and ends in a small ditch west of the site. This area is restricted by a chain-link fence. The ditch becomes larger behind a former gas station. The drain goes below S.R. 159 and a residence, and surfaces into another ditch that continues toward Dugger Lake. Despite efforts by Dugger Electric to stop the flow of oil into the ditch, an oily sheen continues to

flow from the property, and Dugger Electric maintains hay bales and absorbent pads to prevent downstream migration of the oil.

Oil stains are visible on the stored electrical equipment and soil at the site. Sampling of soil on the property, and water and sediment from the ditch, confirmed the presence of PCBs. Sediment samples collected from Dugger Lake also confirmed the presence of PCBs. A limited fish consumption advisory is in effect for Carp and Catfish in Dugger Lake. This is primarily due to the difficulty in obtaining samples of these species for testing, and because these two species are generally the most likely to be contaminated based on sampling data from other rivers and streams. The results of tests on other species of fish were below the health advisory limits.

In March 1991, the 55-foot drill hole contained approximately 15 feet of oil on top of 2-3 feet of groundwater. Laboratory test results from the oil showed the presence of Aroclor-1260 at 740 ppm. Although over 4,000 gallons of PCB-contaminated oil were removed from the drill hole as of September 1991, the oil continues to recharge the hole.

A municipal water system supplies water to all Dugger residents through water purchased from Linton, Indiana. A few private groundwater wells still exist; however, it is unknown if these wells are still being used.

Seven monitoring wells were installed by ABB Environmental between April 2 and 18, 1991, to monitor the groundwater in and around the zone of contamination at the Dugger Electric facility. Cuttings and formation water were collected for laboratory analysis of PCBs. PCB concentrations between 0.1 and 0.2 ppb were detected in three groundwater samples. From April 18 to 23, 1991, resampling of the previous seven monitoring wells, a spring, and thirteen drilled holes in the vicinity of Dugger did not detect PCBs.

Dugger Electric has: 1) placed booms in the ditch to prevent migration of the oil downgradient of the site, 2) constructed a fence to restrict public access, and 3) sent the containers holding the recovered PCB oil to the Aptis/Westinghouse incinerator for disposal.

#### B. SITE VISIT

On February 7, 1992, Dr. Gregory Steele and Ravishankar Rao of the Indiana State Department of Health (ISDH) and staff from IDEM visited the site. During the site inspection we observed the following:

- 1. Each of the two on-site parcels of land were completely fenced. Entrance to the north portion is from the Hunley offices (entrance from Main Street) and a locked gate on the west side of the property.
- 2. Transformers were observed on both sections of the site. The majority, however, were found on the southern section.
- 3. A small portion of the drainage pipe is exposed on the west side of the site outside the fence prior to its discharge into the ditch. The ditch was surrounded by a 6-foot chain-link fence with barbed wire. Absorbent pads and hay bales were placed in the ditch to absorb any oil.
- 4. The ditch which passes behind a former gas station and a residence is not fenced. This section of the ditch continues behind several residences toward Dugger Lake.

### C. DEMOGRAPHICS, LAND USE, AND NATURAL RESOURCE USE

The Dugger Electric facility is located in Dugger, Indiana, in a residential/commercial area. The population of Dugger in 1990 was 1,150 persons with the majority (99+%) of the population being white. Information regarding general social and economic characteristics of the city are unavailable; however, information on Sullivan County is available. The population of Sullivan County in 1990 was 18,993 persons with 18,905 persons being white.

The City of Dugger overlies abandoned underground coal mines. These old mines are estimated to be 80 feet below the surface at the site. The depth of the groundwater at the site is unknown. Dugger Lake, which is approximately 1 mile southwest of the site, is assumed to be the ultimate recipient of surface water from the Dugger Electric property. A drainage ditch leading from the site discharges into Dugger Lake.

#### D. HEALTH OUTCOME

This subsection identifies the relevant, available databases; their evaluation occurs in the PUBLIC HEALTH IMPLICATIONS section. Cancer may be a plausible health outcome from long-term exposure to PCBs and other by-products of PCBs. The ISDH maintains a statewide cancer registry; however, data regarding cancer incidence by city and county are not yet available. In addition, the ISDH maintains a mortality database by county. Mortality data on Sullivan County cancer deaths are available. The public health implications of these data will be evaluated in the HEALTH OUTCOME DATA EVALUATION subsection.

#### COMMUNITY HEALTH CONCERNS

The following are community health concerns derived from correspondence to the ISDH from citizens.

- 1. Are the fish in Dugger Lake contaminated with PCBs? Are the fish safe to eat?
- 2. Will site-related chemicals pose a cancer risk to individuals living along Dugger Lake?

#### ENVIRONMENTAL CONTAMINATION AND OTHER HAZARDS

The tables in this section list the chemicals detected. We evaluate these chemicals in the subsequent sections of the Health Assessment and determine whether exposure to them has public health significance. The ISDH selects and discusses these chemicals based upon the following factors:

- 1. Concentrations of chemicals on and off the site.
- 2. Field data quality, laboratory data quality, and sample design.
- 3. Comparison of on-site and off-site concentrations with background concentrations, if available.
- 4. Comparison of on-site and off-site concentrations with health assessment comparison values for (1) noncarcinogenic endpoints and (2) carcinogenic endpoints.
- 5. Community health concerns.

In the data tables that follow under the ON-SITE CONTAMINATION and OFF-SITE CONTAMINATION subsections, the listed chemical does not mean that it will cause adverse health effects from exposures. Instead, this list indicates which chemicals will be evaluated further in the Health Assessment.

The data tables include the following acronyms:

**EMEG** = Environmental Media Evaluation Guide

ppm = Parts per million

ppb = Parts per billion

**RfD** = Reference Dose

TRI = Toxic Chemical Release Inventory

Comparison values for the Health Assessment are chemical concentrations in specific media that are used to select chemicals for further evaluation. These values include Environmental Media Evaluation Guides (EMEGs). EPA's Reference Dose (RfD) is an estimate of the daily exposure to a contaminant that is unlikely to cause adverse health effects.

The Toxic Chemical Release Inventory (TRI) is a EPA database that contains information on chemical releases of industries in the United States. It is used to determine the potential sources of contamination near NPL sites. A computer search was conducted of the most recent toxic release inventory (TRI89) data to determine the number of industries near the site within the City of Dugger (zip code = 47848). The data did not show any industries with chemical releases in Dugger, Indiana.

A chemical is selected as a chemical of concern if: 1) it has no health comparison value and may be toxic to humans at specified levels, 2) it is a cancer causing agent, and 3) it is found in concentrations higher than its health comparison value.

#### A. ON-SITE CONTAMINATION

#### Groundwater - On-Site Well

On December 26, 1990, samples were taken from an on-site well. Chemicals detected included chlorobenzene and Aroclor-1260 (Table 1). Aroclor-1260 (PCB) was found at levels above its health comparison value.

Table 1. Groundwater Results From On-Site Well, December 26, 1990.

Chemical	Sample ID	Concentration Range - ppm	Comparison Value	
			ppm	Source
Aroclor-1260 (PCB)	RK4231	0.0054	0.00018	EMEG
Chlorobenzene	RK4229	0.007	0.7	RfD
1,2-Dichloro- ethene (total)	RK4279	0.23	0.7	RfD

Data from reference #5.

#### Drums

Samples were taken from drums on December 26, 1990, and were analyzed for PCBs. Chemicals detected included Aroclor-1260 and Aroclor-1242. They were both found at concentration levels above their health comparison value.

Table 2. On-Site Drum Sample Results, December 26, 1990.

Chemical	Sample ID	Concentration Range -ppm		rison lue
			ppm	Source
Aroclor-1260 (PCB)	RK4232	710	0.00018	EMEG
Aroclor-1242 (PCB)	RK4232	22	0.00018	EMEG

Data from reference #5.

#### Steel-Cased Hole

Samples were taken at different times of the day on March 4, 1992, from a hole located on the south edge of the site next to the Dugger Electric storage buildings (Figure 2). Sample results revealed high levels of PCBs and several hydrocarbons (Table 3). Due to the concentrations found in the hole and/or the lack of a health-based comparison value, the health effects of these chemicals will be discussed further in the TOXICOLOGICAL EVALUATION subsection.

Table 3. On-Site Surface Oil/Liquid Results, Steel-Cased Hole, March 4, 1991.

Chemical	Sample ID	•		Comparison Value	
			ppm	Source	
Aroclor-1260 (PCB)	RK4594 RK4595	720 740	0.00018	EMEG	
Naphthalene	RK4594 RK4595	280 310	0.02	LHA	
Acenaphthene	RK4594 RK4595	6,200 5,800	0.06	RfD	
Fluorene	RK4594 RK4595	11,000 8,100	0.04	RfD	
Phenanthrene	RK4594 RK4595	21,000 7,400	_	*	
Anthracene	RK4594 RK4595	5,800 12,000	-	*	
Fluoranthene	RK4594 RK4595	20,000 2,000	0.04	RfD	
Pyrene	RK4594	6,300	-	*	

<sup>\*</sup> No health comparison value available Data from reference #7.

#### Surface Soil

Several on-site surface soil samples were collected on May 31, 1990, from areas surrounding transformers (Figure 3). The samples revealed various levels of PCBs (Table 4). Two of the on-site samples (RK2979 & RK2988) showed PCBs above their comparison value. The health effects of PCBs at these concentrations will be discussed in the TOXICOLOGICAL EVALUATION subsection.

Table 4. On-Site Surface Soil Results, May 31, 1990.

Chemical	Sample ID	Concentration Range - ppm		arison lue
			ppm	Source
Aroclor-1260	RK2979 (HS-11)	50	3.5	EMEG
(PCB)	RK2980 (HS-12)	4		
	RK2981 (HS-13)	6		
	RK2982 (HS-14)	10	'	1
	RK2983 (HS-15)	17		
	RK2984 (HS-21)	0.5		
	RK2986 (HS-23)	0.4		

Data from reference #8.

#### B. OFF-SITE CONTAMINATION

#### Groundwater - Monitoring Wells

On April 4, 1991, monitoring wells MW-4 through MW-7 were sampled (Figure 1). All the samples showed no detectable levels of PCBs (Table 5) except for the sample from MW-6 & 7 (Dugger City Park). On April 17, 1991, MW-3 was tested; the sample showed no detection of PCBs. On November 7, 1991, several monitoring wells located within the City of Dugger were sampled. Sample locations included areas south of Dugger Lake, Union High School, Dugger City Park, and major roads such as State Route 54. These samples were analyzed for PCBs. None of these samples showed a detectable concentration of PCBs and, therefore, are not listed below.

Table 5. Off-Site Monitoring Well Results, April 4, 1991.

Chemical	Sample ID	Concentration Range - ppm	Compar Val	
Aroclor-1254 (PCB)	RK4762 (MW-6)	0.002	0.00018	EMEG
	RK4764 (MW-7)	0.0002		

Data from reference #2.

#### Surface Water

On October 24, 1990, two samples were taken from the north edge of the drainage ditch at the base of the drainage pipe, and at the drain (Table 6); no PCBs were found in either sample.

On May 31, 1990, two samples were taken from the open storm drain basin on the west side of the fenced property (Figure 4). PCBs were detected in both samples at 40 ppb (Table 6).

Eight surface water samples were collected on December 26, 1990, from the storm ditch. The storm ditch, which originates on the east side of the site, flows below and to the west side of the site into a larger ditch. No PCBs were detected.

Surface water samples were collected from May 31, 1990, to February 20, 1991. The samples collected from the ditch near the open drain on the west edge of the property revealed high concentrations of PCBs (440 ppb). The samples were collected along the inferred underground route of drainage. The detected concentration in the samples decreased the farther west the samples were collected. PCBs from sample locations SW-3, SW-4, SW-5, SW-6, HW-12, and duplicate sample HW-14 were found at levels of concern (Table 6). All other samples were below laboratory detection limits. The health effects of PCBs will be discussed in the TOXICOLOGICAL EVALUATION subsection.

Table 6. Off-Site Surface Water Results.

Chemical	Sample ID	Concentra- tion	····	rison lue		
		Range-ppb	ppb	Source		
Aroclor-	Open Storm Dr	ain Basin (0	5/31/90)			
1260 (PCB)	RK2974 (HW-12) RK2976 (HW-14, dup.)	4 0 4 0	0.18	EMEG		
	Storm Drain	Storm Drain Ditch (02/20/91)				
	RK4541 (SW-3) RK4540 (SW-4) RK4539 (SW-5) RK4538 (SW-6)	440 220 1 9	0.18	EMEG		
Aroclor-	Storm Drain Ditch (03/22/91)					
1260 (PCB)	RK4699 (SW-3) RK4700 (SW-4) RK4701 (SW-5) RK4702 (SW-6) RK4703 (SW-7) RK4704 (SW-7, dup.)	0.35 23 2 .64 .44	0.18	EMEG		

Data from reference numbers 8, 9, and 11.

#### Sediment

On October 24, 1990, sediment samples were collected on the south side of the bank near the hay bales. The samples from the creek showed concentrations of Aroclor-1260, above its health comparison value (Table 7).

Table 7. Off-Site Sediment Results, Site Creek Bed, October 24, 1990.

Chemical	Sample ID	Concentration Range - ppm		rison lue Source
Aroclor-1260 (PCB)	RK3698 RK3699	6.1 5.8	3.5	EMEG

Data from reference #6.

#### Surface Soil

Seven surface soil samples were analyzed on October 24, 1990, for semi-volatile organic compounds (SVOCs) and PCBs. Samples were collected on the west side of the property at the edge of the chain-link fence, approximately 20 feet from the stop sign and power line at the corner of Main and Second Streets (Figure 5). PCBs were found at levels above their health comparison values in sample number RK3697, Site 2 (Table 8).

Several surface soil samples were collected from the storm ditch area at a depth of 1-6 inches on December 26, 1990. Surface soil samples revealed the following polycyclic aromatic hydrocarbons (PAHs): benzo(b)fluoranthene, pyrene, and phenanthrene. On February 20, 1991, surface soil samples collected from the same storm ditch area revealed PCBs were concentrating at the hay bales and not migrating downstream. On March 22, 1991, samples of the locations revealed low levels of PCBs in the storm ditch. Health comparison values have not been determined for the PAHs; therefore, they are chemicals of concern.

Table 8. Off-Site Surface Soil Results.

Chemical	ical Sample ID		Concentration Range-ppm		arison llue
				ppm	Source
		Storm	Drain Ditch		
Aroclor-1242 (PCB)	RK3696 (Site 1)	10/24/90	2.1	3.5	EMEG
Aroclor-1260 (PCB)	RK2992 (GRS-1) RK4540 (Site-4) RK4539 (Site-5) RK4538 (Site-6) RK4699 (SS-3) RK4700 (SS-4) RK4701 (SS-5) RK4702 (SS-6) RK3697 (Site 2) RK3696 (Site 1)	05/31/90 02/20/91 03/22/91 10/24/90	0.1 0.34 2.7 1.1 0.36 1.0 3.4 1.0 4.7	3.5	EMEG
Benzo(b)fluoranthene	RK4227 (SS-2) RK4225 (SS-3) RK4221 (SS-7)	12/26/90	330 430 400	<del>-</del>	*
Fluoranthene	RK4221 (SS-7) RK4225 (SS-3)	12/26/90	820 430		
Pyrene	RK4227 (SS-2) RK4225 (SS-3) RK4221 (SS-7)	12/26/90	360 430 590	_	*
Phenanthrene	RK4225 (SS-3)	12/26/90	360	-	*
		PSI Transfo	ormer Storage Area		
Aroclor-1260 (PCB)	RK2991 (PS-14)	05/31/90	0.2	3.5	EMEG

<sup>\*</sup> No health comparison value available Data from reference numbers 5, 6, 8, 9, & 11.

#### Fish Sampling

In May 1990, fish samples of the Bluegill, Warmouth, White Crappie, and Large Mouth Bass species were collected by IDEM from the east basin of Dugger Lake. Sample results showed several fish with low levels of PCBs. The ISDH currently uses FDA guidelines for the development of their fish consumption advisories. Although PCBs were detected, they were not at concentrations high enough to warrant a fish consumption advisory.

No fish tissue data were available, however, for either Catfish or Carp. Due to their predatory nature and being bottom feeders, these two species were deemed to be the most likely to be contaminated. Since no data on these species were available, a Group 2 fish consumption advisory (limit consumption to no more than one meal per week, and women and children should not consume) was issued until data either supporting or refuting the advisory could be developed.

### C. QUALITY ASSURANCE AND QUALITY CONTROL

In preparing this health assessment, the ISDH relies on the information provided in the referenced documents. Adequate quality assurance and quality control measures were followed with regard to chain-of-custody, laboratory procedures, and data reporting. The validity of the analysis and conclusions drawn for this Health Assessment are determined to be complete and comprehensive.

#### D. PHYSICAL AND OTHER HAZARDS

As discussed in the SITE VISIT subsection, each parcel of land on-site is fenced. Warning labels of "High Voltage" can be seen on each fence. The steel-cased hole on the property is covered by a single metal sheet/plate that is easily moved. A drainage ditch opening on the west side of the site is uncovered.

#### PATHWAY ANALYSES

An exposure pathway is considered complete only if all of the following elements are present: 1) source of contamination, 2) environmental media and transport, 3) point of exposure, 4) route of exposure, and 5) receptor population. As discussed in the ENVIRONMENTAL CONTAMINATION AND OTHER HAZARDS section, the on-site steel-cased hole, surface soil, and off-site drainage ditch are contaminated with PCBs. Exposure pathways related to these contaminants and media are discussed below.

#### A. COMPLETED EXPOSURE PATHWAYS

#### On-site Surface Soil

The on-site surface soil is contaminated with PCBs at levels of concern. Several transformers and drums located on-site have been removed. Approximately 600 used transformers, some of which appear to have leaked, or are leaking oil, are scattered across the surface of the site. Although it is unlikely that individuals who work on-site may ingest, inhale, or have direct contact with the contaminated surface soil/dust, on-site workers should take precautions to minimize dermal contact with contaminated soils.

#### Off-Site Surface Water

The contaminated surface water of the drainage ditch flows from Dugger Electric through a residential area. There is a potential for individuals and children in the area to ingest or have dermal contact with this water during recreational activities. The surface water flows through the storm drain under the site into the drainage ditch.

Because the drainage ditch connects from the site to Dugger Lake, suspended sediments containing PCBs could flow with the water in the ditch and eventually discharge into the lake. Preliminary analytical test results reveal the surface water and sediment from the ditch are contaminated with PCBs. The extent of the contamination in the lake is not known.

Table 9. Completed Exposure Pathways

PATHWAY	EXPOSURE PATHWAY ELEMENTS						
NAME	SOURCE	ENVIRONMENTAL MEDIA	POINT OF EXPOSURE	ROUTE OF EXPOSURE	EXPOSED POPULATION	TIME	
On-site Surface Soil	Dugger Electric	Soil	Site	Ingestion, Dermal contact, Inhalation	On-site workers	Past Present Future	
Off-site Surface Water	Dugger Electric	Surface Water	Open drainage ditch,	Incidental Ingestion, Direct contact	Neighborhood residents	Past Present Future	
			Dugger Lake	Ingestion, Inhalation		Present	

#### B. POTENTIAL EXPOSURE PATHWAYS

#### Off-site Groundwater

Most of the City of Dugger lies above abandoned underground coal mines. We do not know how many Dugger residents use private wells for drinking, showering, or other domestic purposes. The public water supply for Dugger, however, is purchased from Linton, Indiana. During the first sampling of monitoring wells in April 1991, PCB concentrations between 0.1 and 0.2 ppb were detected in three groundwater samples. During the second sampling of the previous monitoring wells near the site, and several holes in the vicinity of Dugger, no PCBs were detected.

IDEM is currently determining the water table levels from the previous seven monitoring wells that were installed during the first sampling in April 1992. Even though PCBs were not detected in the last sampling of the monitoring wells, there is a potential for residents with private wells to ingest or be exposed to PCBs through domestic use of water in the future if the groundwater becomes contaminated. There is inadequate data regarding the sampling for PCBs and other contaminants of private wells. Since the direction of the groundwater flow and the extent of any groundwater contamination is unknown, these areas, as well as the affect of any mine de-watering activity which might result in a shift of the groundwater flow direction, should be investigated.

#### Fish Pathway

There is the possibility of a past, present, and future completed exposure pathway for all individuals eating certain fish species found in Dugger Lake. Fish in this lake absorb PCBs either directly by ingesting contaminated water and sediment, or indirectly by consuming other fish that have absorbed this chemical. Carp are plant-eating fish. Catfish eat dead fish, scavenge the bottom of lakes, and continually disturb bottom sediments. A limited fish advisory has been issued on Dugger Lake due to the lack of tissue sampling data in Carp and Catfish. Until this sampling is done, these two fish species remain the only completed fish exposure pathways for Dugger Lake.

Table 10. Potential Exposure Pathways

PATHWAY	EXPOSURE PATHWAY ELEMENTS						
NAME	SOURCE	ENVIRONMENTAL MEDIA	POINT OF EXPOSURE	ROUTE OF EXPOSURE	EXPOSED POPULATION		
Off-site ground- water	Dugger Electric	Groundwater	Private wells	Ingestion, Dermal contact, Inhalation (showering)	Individuals who use private wells for domestic purposes	Future	
Fish	Dugger Electric	Fish .	Dugger Lake	Ingestion	Neighborhood residents	Past Present Future	

State Form 43207 (2-89)

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

2301E

#### **INDIANAPOLIS**

# FICE MEMORANDUM

DATE: JUNE 25,1990

TO:

John L. Winters

THRU: C. Lee Bridges Chabula

FROM:

James R. Stahl

SUBJECT: St

Subject: "Dugger Lake" fish and sediment contamination investigation

On April 27, 1990 Biological Studies staff and OER staff, Marlene Mathas, visited a strip pit lake (locally known as "Dugger Lake") and drainage ditch located just west of the town of Dugger in Sullivan County to collect surface water and surficial sediment samples (see attached map). Biological Studies staff were there primarily to survey the area for access to collect fish tissue samples from the lake's east basin. All samples were to be analyzed for PCBs (see OER Report on Dugger Electric Equipment Co., Dugger, IN, March 1990).

"Dugger Lake" consists of two distinct basins. The "east" is approximately 2 acres and the "west" is approximately 52 acres. The two basins are connected by a culvert that passes underneath a road that separates the two. The west basin consists of two long fingers that extend to the north and to the south. Mr. Dane Strahle, a homeowner along the east basin shore boasted of an excellent crappie as well as other game fish fishery. Both basins are sport fished.

Both surface water and sediment samples were collected from the following locations on 4/27/90 (see attached map):

- 1. midway down a ditch coming from the Dugger Electric Equipment Co and the east basin. (sediment grab and surface water grab)
- 2. the eastern half of the east basin (three grabs in cross section for a composite sediment sample and surface water grab)
- 3. 200 meters off of the connecting culvert inlet into the west basin. (again the sediment sample was a composite of three ponar grabs plus a surface water grab).

Field duplicate samples were taken of the ditch sediments and of the east basin surface water. Both surface water and sediment samples were analyzed by National Environmental Testing Laboratories, Indianapolis.

On 5/2/90 staff returned to "Dugger Lake" to collect fish samples from the east basin for tissue contaminant analysis. An electrofishing boat was used. Samples submitted to the ISBH Consumer Health Lab (CHL) were:

- 1. Bluegill (whole)
- 2. Warmouth (whole)
- 3. White Crappie (skin-on fillets, scaleless)
- 4. Largemouth Bass (skin-on fillets, scaleless)
- 5. Bluegill (skin-on fillets, scaleless)

Unfortunately no bottom feeders such as carp or catfish could be collected as this is a very steep banked, deep basin with very good water clarity. Electrofishing is not a good method for collecting these species out of deep waters.

Analytical results of surface water grab samples collected from "Dugger Lake" showed less than detectable amounts of PCBs in either basin or the drainage ditch (Table 1). This was not unexpected as PCB oils have a very low solubility. Because of the low solubility, high octanol-water-partition coefficient and strong adsorption of PCBs to soils and sediments, significant leaching should not occur from sediment to water. Detectable levels of PCBs in water would therefore only be an indication of recent contamination to the aquatic environment. The water quality standards for PCB in Indiana waters outside of the mixing zone for human health is 0.00079ug/l (risk level 10<sup>-5</sup>). The Chronic Aquatic Criterion for aquatic life (4-day average) is 0.014ug/l. The laboratory's detection limit was 1.0 ug/l for each of the seven PCB mixtures.

In the aquatic environment PCB adsorption to sediments or other organic matter is a major fate process. PCBs in surficial sediments from both "Dugger Lake" east basin and the drainage ditch to the lake were detected in low concentrations as aroclor-1254 (Table 2.). However due to QA/QC problems in reporting the water and sediment results these values may be unreliable even though documentation shows the definite presence of PCB aroclor-1254 (see OFFICE MEMORANDUM 6/19/90 from Richard Radcliff to Monique Hinterberger and Jim Stahl). Results of PCB analysis on sediments from the west basin were below the laboratory detection limits. Method detection limits (0.3 ug/g) set for this analyzing laboratory were much higher than those normally used by this office for ambient sediment monitoring (0.01-0.05 ug/g).

Indiana State Board of Health CHL fish tissue results are shown in Table 3. None of the 5 samples collected 5/2/90 exceeded the USFDA action level of 2.0 ppm total PCB on an edible portion basis. The Office of Emergency Response recently submitted a whole channel catfish, whole black bullhead and another whole bluegill sample (6/1/90) to the ISBH-CHL. These had been caught by Mr. Strahle subsequent to the Biological Studies Section's collection. John Kassis (OER) should be contacted for these results. Further information as to the status of monitoring or actions against Dugger Electric Equipment Co. should be referred to Marlene Mathas, now with OSWM.

#### Attachments

cc John Kassis (OER)
Marlene Mathas (OSWM)
Syed GhiasUddin (OWM)
Don Fitzpatrick (External Affairs)

TABLE 1. RESULTS OF SURFACE WATER ANALYSIS FOR PCBs IN "DUGGER LAKE", 4/27/90, SULLIVAN COUNTY, INDIANA.

## Surface Waters (ug/l)

• . •

					DITCH TO
	BLANK	FAST	BASIN	WEST BASIN	DUGGER LAKE
OLS SAMP	LE # DK4336	DK4337	(DK4338)	DK4343	DK4339
AROCLOR					
PCB-1016	<1.0	<1.0	(<1.0)	<1.0	<1.0
PCB-1221	<1.0	<1.0	(<1.0)	<1.0	<1.0
PCB-1232	<1.0	<1.0	(<1.0)	<1.0	<1.0
PCB-1242	<1.0	<1.0	(<1.0)	<1.0	<1.0
PCB-1248	<1.0	<1.0	(<1.0)	<1.0	<1.0
PCB-1254	<1.0	<1.0	(<1.0)	<1.0	<1.0
PCB-1260	<1.0	<1.0	(<1.0)	<1.0	<1.0
DIBUTYLCHLORE	NDATE	-			
SURROGATE REC	OVERY(%) 115	105	(104)	. 103	96
/\					•

<sup>()=</sup>FTELD DUPLICATE SAMPLE RESULTS

TABLE 2. RESULT OF SURFICIAL SEDIMENTS ANALYSIS FOR PCBs IN "DUGGER LAKE", 4/27/90, SULLIVAN COUNTY, INDIANA.

(UG/G WET WEIGHT)

	DITCH TO		
	"DUGGER LAKE"	EAST BASIN	WEST BASIN
OLS SAMPLE	E # DK4340 (DK4341)	DK4342	DK4344
AROCLOR			
PCB-1016	<0.3 (<0.3)	<0.3	<0.3
PCB-1221	<0.3 (<0.3)	<0.3	<0.3
PCB-1232	<0.3 (<0.3)	<0.3	<0.3
PCB-1242	<0.3 (<0.3)	<0.3	<0.3
PCB-1248	<0.3 (<0.3)	<0.3	<0.3
PCB-1254	0.3 (<0.3)	0.8	<0.3
PCB-1260	<0.3	<0.3	<0.3
%MOISTURE	63 (64)	42	34
TOTAL ORGANIC			
CARBON	54 (39)	21	20
SURROGATE RECO	OVERY		
Dibutylchloren	date 25 (24)	136	128
()-Taboratory	Dimlianto		<del></del>

<sup>()=</sup>Laboratory Duplicate

TABLE 3.SAMPLE DESCRIPTION DATA AND ANALYTICAL RESULTS (ISBH-CHL) FOR FISH SAMPLES COLLECTED FROM "DUGGER LAKE" EAST BASIN, SULLIVAN COUNTY, INDIANA CO ON 5/2/90. RESULTS ARE REPORTED ON A WHOLE FISH BASIS (PPM).

	WHOLE BLUEGILL : # 701	WHOLE WARMOUTH 702	WHITE CRAPPIE SK-ON FILLEIS 703	LARGEMOUTH BASS SK-ON FILLETS 704	BLUEGILL SK-ON FIL. 705
TOTAL					,
PCBs	1.49 (1.27)	0.837	0.155	0.197 (0.154)	0.211
%FAT AVGERAGE	5.46 (5.22)	1.870	0.333	0.273 (0.254)	0.798
WEIGHT (GM)	108	71	363	445	207
RANGE	34-168	18-105	290-416	336-692.	158-278
AVGERAGE		,			
LENGIH (CM)	17.1	14.0	30.2	32.9	20.7
RANGE	14.2-19.6	9.2-16.8	27.8-31.1	30.6-37.0	18.9-22.6

<sup>()=</sup>LABORATORY DUPLICATE

## DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### **INDIANAPOLIS**

# OFFICE MEMORANDUM

DATE:

THRU:

June 28, 1990

Skip Powers \$ 900

Corinne Wellish

Jackie Strecker

Robert L. Morand W 6/4

TO:

Rod Thompson, Chief

State Cleanup Section

FROM:

John Kassis X. 6/24/90

Emergency Response

SUBJECT:

Dugger Electric Company

PCB Contamination Incident No. 9003157

downstream.

Emergency Response staff has identified the Dugger Electric Company site as a potential cleanup site for the State Cleanup Section of the Office of Environmental Response. Samples taken by Emergency Response, Office of Solid and Hazardous Waste Management and the Biological Studies Section of the Office of Water Management (see Attachment 1) have confirmed the presence of PCB contamination both on the Dugger Electric Company Site #1 and off-site in drainage ditch samples as well as lake sediment samples and fish tissue samples taken from Dugger Lake one mile

A temporary fish consumption advisory was issued on April 27, 1990, by the Indiana State Board of Health (ISBH) after preliminary sampling results were reviewed by IDEM (see Attachment 2). The advisory was then partially removed on May 21, 1990, when fish tissue sample analyses indicated that the U.S. FDA target warning level of 2.0 ppm PCB in the "whole fish" sample was not achieved (see Attachment 2).

On May 31, 1990, Emergency Response staff again sampled the Dugger Electric Company Site #1 and a second transformer storage location Dugger Electric Site #2 (see Attachment 3) and a Public Service of Indiana (PSI) temporary transformer storage site. The PSI storage of transformers occurred the winter of 1989 during an upgrade of the electrical voltage system in Dugger, Indiana (see Attachment 4). Again, PCB contamination was confirmed to be on Dugger Electric Company Site #1 and running off-site of Dugger Electric Site #1. No PCB contamination was confirmed on Dugger Electric Site #2 or the PSI Site. During the May 31, 1990 sampling, split samples were given to Mr. Hunley per request of Mr. Hunley, owner of Dugger Electric Company.

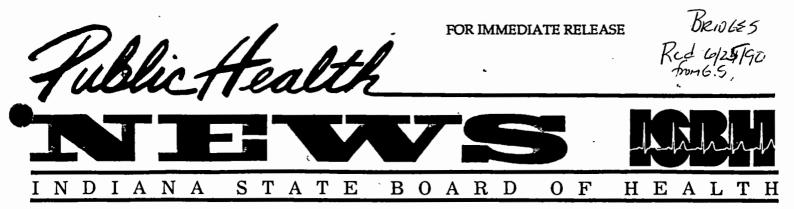
Staff also collected two sets of fish samples caught by residents on Dugger Lake on May 31, 1990. The fish represented the catfish population (bottom feeders) and another blue gill population sample. The results from these samples should be available through the ISBH Consumer Health Laboratory by July 17, 1990. The contact person for the advisory is Gregory Steele 317/633-8554 (see Attachment 5).

Rod Thompson, Chief Page 2 June 28, 1990

Although an environmental emergency does not exist at this time, priority status should be given to this case until the investigation proves/disproves the source. All scientific data indicates that further in-depth investigation for a remedial cleanup should be addressed.

The key points to address are the mechanism in which the oil is infiltrating the storm sewer system beneath Dugger Electric Site #1 and the historical disposal of the accumulated dielectric oil from Dugger Electric Company during its operation.

No further action is anticipated by this office.



May 21, 1990

For Additional Information Call Mary Ann Cox, 317-633-0852

# GREEN LIGHT GIVEN FOR CONSUMPTION OF MOST DUGGER LAKE FISH

A temporary advisory against eating fish taken from Dugger Lake in Sullivan County was partially lifted today by state health, environmental and natural resource officials. The cautionary measure was revised after the Indiana State Board of Health completed tests on fish samples taken from the lake earlier this month by the Indiana Department of Environmental Management.

The temporary advisory was issued April 27 after an IDEM review of soil and water sample results indicated that PCBs, or polychlorinated biphenyls, were present in a tributary of the lake.

"We're pleased with the results of the sampling," noted Greg Steele, an environmental epidemiologist with the ISBH. "Fisherman can resume eating the majority of their catch from Dugger Lake. We're issuing a Group 2, or limited advisory for carp and catfish from Dugger Lake because they are bottom feeders and PCBs settle to river and lake bottoms. In addition, due to the depth of the lake, IDEM was unable to sample fish residing on the bottom. It's just a precaution to protect public health."

A Group 2 advisory means that women of child bearing age and children under the age of 15 should not consume any of the designated species. All other fish in Dugger Lake have received a Group 1 rating, which means no consumption advisory is in effect.

PCBs are a group of 209 compounds found in old transformers and capacitors. The effects of chronic, long-term ingestion of PCBs are still under investigation.

State health officials suggest Hoosiers follow safe-cooking practices when preparing freshly-caught fish to further reduce any risk associated with the consumption of eating contaminated fish. Safe-cooking calls for preparing fish as skinless fillets, trimming all fat and backing or broiling the fish so the fat can drip off while cooking. Preparing and cooking fish in this manner can reduce the amount of contamination by nearly 50 percent. These tips are highlighted in the brochure "Preparing and Eating Fish Caught in Indiana Waters," which is available upon request from the Indiana Department of Environmental Management, the Indiana State Board of Health and the Indiana Department of Natural Resources.

#### SECTION VI

#### REFERENCES

- EPA Potential Hazardous Waste Site Preliminary Assessment Form, EPA Form 2070-12 for the Dugger Electric site, Dugger, Indiana
- EPA Potential Hazardous Waste Site Inspection Form 2070-13 for the Dugger Electric site, Dugger, Indiana.
- Indiana Department of Environmental Management Files, Part 3B.
- Geology Assessment, Mr. Billy Giles, CPG, Indiana Department of Environmental Management.
- Indiana Department of Natural Resources, Water Well Logs.
- Marlene Mathis, Telephone Conversation, Indiana Department of Environmental Management.
- Mr. Robert Hunley, Personal Conversation, Owner of Dugger Electric.
- Mr. Cloyce Hedge, Telephone Conversation, Indiana Department of Natural Resources.

## APPENDIX A

SITE 4 - MILE RADIUS MAP



# APPENDIX B

U.S. EPA FORM 2070-13

· A TOP Section

# POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

TND 984894808

V/LI/	PART 1 - SI	TE LOCATION AND	INSPE	CTION INFORM	MATION LIND	1 904094000
II. SITE NAME AND LOCA						
O1 SITE NAME (Legal, common, or	descriptive name of site)		02 STREE	T, ROUTE NO., OR S	SPECIFIC LOCATION IDENTIFIER	
Dugger Electr	ic		Main	Street	·	
03 CITY		•		05 ZIP CODE	06 COUNTY	07COUNTY 08 CC
Dugger			IN	47848	Sullivan	153 08
09 COORDINATES	LONGITUDE	10 TYPE OF OWNERSH	O B. FED	ERAL	. C. STATE D. COUNT	Y DE. MUNICIPAL
39 <u>04</u> 00 <u>''</u>		☐ F. OTHER -			G. UNKNO	OWN
III. INSPECTION INFORM	ATION 02 SITE STATUS	03 YEARS OF OPERA	TION			
7, 30, 91	LX ACTIVE			Present	UNKNOW	
MONTH DAY YEAR	☐ INACTIVE	BEG	INNING YEA	R ENDING YEA		
04 AGENCY PERFORMING INSP	ECTION (Check all that apply)					
☐ A. EPA ☐ B. EPA CO		(Name of firm)			MUNICIPAL CONTRACTOR _	(Name of firm)
X E. STATE ☐ F. STATE	CONTRACTOR	(Name of firm)	□ G. OT	HER	(Specify)	
05 CHIEF INSPECTOR		06 TITLE			07 ORGANIZATION	08 TELEPHONE NO.
Mark Jaworski		Environme	ntal S	Scientist	IDEM	B17)232-89
09 OTHER INSPECTORS		10 TITLE			11 ORGANIZATION	12 TELEPHONE NO.
Pat Austin		Chemist			IDEM	B17)232-88
						( )
						( )
						( )
<u> </u>						
						( )
13 SITE REPRESENTATIVES INTERVIEWED		14 TITLE	14 TITLE 15 ADDRESS			16 TELEPHONE NO
Robert Hunley	7	owner/ope	owner/operator 128 Monroe S		roe Street	812, 648-2 812, 648-2
						( )
• .						( )
•						( )
	<del></del>					
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		1			<del></del>	
17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER COND	DITIONS			
X PERMISSION	1 - 20		1 00!	n h 4 1		
□ WARRANT  IV. INFORMATION AVAIL	4:30 pm	sunny, mi	a 80'	s, numld		·
01 CONTACT	ADLETAOM	02 OF (Agency/Organi	ization)			03 TELEPHONE NO.
Harry E. Atki		IDEM/OER	IDEM/OER 105 AGENCY 106 ORGANIZATION 107 TELEPHONE NO.			(317) 232-89
	A STATE OF THE STA			· ·		10,09,91
Mark Jaworski		IDEM		OER	317/232-8931	MONTH DAY YEAR
EPA FORM 2070-13 (7-81)						

9	F	P	Δ
	ㄷ		٦

# POTENTIAL HAZARDOUS WASTE SITE

I. IDENTIFICATION					
01 STATE	02 SITE NUMBER				
TMD	08/180/1808				

19 Et	PA	SITE INSPECTION REPORT PART 2 - WASTE INFORMATION  OF STATE 102 SITE N  IND 984			894808		
II. WASTES	TATES, QUANTITIES, AN	D CHARACTERI	ISTICS	<del></del>			
01 PHYSICAL S	TATES (Check of that apply)  □ E. SLURRY R, FINES XO F. LIQUID	02 WASTE QUANTI	ITY AT SITE If waste quantities independent)	03 WASTE CHARACTE  X A. TOXIC  B. CORRO		BLE I. HIGHLY V	IVE
D C. SLUDGE D. OTHER		CUBIC YARDS _	IC YARDS X D. PERSISTENT			ATIBLE	
LI D. OTHER	(Specify)	NO. OF DRUMS _	4789	<u></u>			
III. WASTE T	YPE						
CATEGORY	SUBSTANCE N	AME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS		
SLU	SLUDGE						
OLW	OILY WASTE						· . ·
SOL	SOLVENTS						
PSD	PESTICIDES					· · · · ·	
occ	OTHER ORGANIC CH	HEMICALS	unknown	N/A			
IOC	INORGANIC CHEMIC	ALS					
ACD	ACIDS					, ,	
BAS	BASES			·			
MES	HEAVY METALS						
IV. HAZARD	OUS SUBSTANCES (See A)	ppendix for most frequent	ly cited CAS Numbers)				
01 CATEGORY	02 SUBSTANCE N	AME	03 CAS NUMBER	04 STORAGE/DISE	POSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	PCB (Arochlor	1260)	11096-82-5	5 well injection		940	mg/1
			ļ <u></u>			<u> </u>	
			·				
	3.	<del></del>		· · · · · · · · · · · · · · · · · · ·		<u> </u>	<b></b>
	<u> </u>	·			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u></u>	-
	·						
·			<u> </u>				
			<u> </u>	<u> </u>		<u> </u>	·
			<u> </u>			·	
1			<u> </u>				
					- 1		
	· · · · · · · · · · · · · · · · · · ·		· _				
					t		5.7
V. FEEDSTO	ICKS (See Appendix for CAS Numb	ers)	<del>.l</del>		•	l	L
CATEGORY		_ <del></del>	02 CAS NUMBER	CATEGORY	01 FEEDSTO	OCKNAME	02 CAS NUMBER
FDS .			<del> </del>	FDS	<del></del>		
FDS				FDS			
FDS				FDS			
FDS				FDS			
	S OF INFORMATION (Cite	specific references = 0	state files, sample analysis	<u> </u>		<u></u>	
IDEM	Files (Part 3B Sampling Result	)					* *

<b>SEPA</b>		SITE INSP	ARDOUS WASTE SITE	01 STATE   02 SITE NUMBER   IND   984894808	
		PART 7 - OW	NER INFORMATION		
I. CURRENT OWNER(S)			PARENT COMPANY (If applicable)		
1 NAME		02 D+B NUMBER	OB NAME		09 D+B NUMBER
Robert Hunley 3 STREET ADDRESS (P.O. Box, RFD #, otc.)		<u></u>			
		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.	J	11 SIC CODE
128 Monroe Street		, _ J			
5 CITY		07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
Dugger	IN	47848			
NAME	,	02 D+B NUMBER	OB NAME		09 D+B NUMBER
STREET ADDRESS (P.O. Box, RFD #; etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.	.)	11 SIC CODE
		1			
5 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
1 NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
3 STREET ADDRESS (P.O. 9ox, RFD €, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.	.)	11SIC CODE
		1			
5 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
INAME		02 D+BNUMBER	OB NAME	1	09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.	<del></del>	11 SIC CODE
5 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
<b>3.</b> .	i				1
I. PREVIOUS OWNER(S) (List most recent li			IV. REALTY OWNER(S) (If applicable;		l
NAME	31/1	02 D+B NUMBER	01 NAME	iist most recent firsty	02 D+B NUMBER
Bill Hunley		ł			
3 STREET ADDRESS (P.O. Box, RFD #, etc.)	-	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.		04 SIC CODE
(Mr. Robert Hunley's	Father)	, }			:
cmy Robert Huntey S	OBSTATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
					_
NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
Mr. Ohm					
3 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD . etc.	.)	04 SIC CODE
	·		55 5 11 12 1 1 2 5 1 2 5 5 1 2 5 5 7 1 1 5 5 7 6 6	••	040100002
Deceased	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
	[		1		
NAME		02 D+B NUMBER	IO1 NAME		02 D+B NUMBER
TOTAL		or by bytomber			OZ D Y B NO
STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.	)	04 SIC CODE
				,	0,000
	06STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
СПУ					, •
БСПУ					
				I	
CITY  7. SOURCES OF INFORMATION (Cite sp	ecilic references,	e.g., state liles, sample analys	is, reports)		
. SOURCES OF INFORMATION (Cite sp	ecilic references,	e.g., state liles, sample analys	s, reports)	<b></b>	
'. SOURCES OF INFORMATION (CROSP IDEM FIles (Part 3B)		· · · · · · · · · · · · · · · · · · ·	(s, reports)	)	

Considerable to be a common

<b>≎EPA</b>	PC	SITE INSPE	ARDOUS WASTE SITE CTION REPORT TOR INFORMATION	01 STATE 02	I. IDENTIFICATION O1 STATE O2 SITE NUMBER IND 98489480	
II. CURRENT OPERATOR (Provide II o	fillerent from owner)		OPERATOR'S PARENT COMPA	NY (If applicable)		
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBE	
Robert Hunley			1	•		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.	)	13 SIC COD	
128 Monroe Street		Í			- 1	
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
Dugger	IN	47848				
06 YEARS OF OPERATION 09 NAME OF						
III. PREVIOUS OPERATOR(S) (List me	ost recent first; provide on	ly if dillerent from owner)	PREVIOUS OPERATORS' PARE	NT COMPANIES (#	applicable)	
O1 NAME.		02 D+B NUMBER	10 NAME		11 D+B NUMBE	
Bill Hunley		r		-		
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.	J	13 SIC COL	
(MrRobert Hunley	's Father)	)			ŀ	
05 CITY		07 ZIP CODE	14 CITY	16 STATE	16 ZIP CODE	
08 YEARS OF OPERATION 09 NAME OF	OWNER DURING THE	S PERIOD	10 NAME		11 D+B NUMBE	
_	,	102 DTB NOMBER	TO TANKE			
Mr. Ohm O3 STREET ADDRESS (P.O. Box, RFD #, etc.)		TO4 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.		13 SIC CO	
, , , , , , , , , , , , , , , , , , , ,		043.00002	12 STREET ADDRESS (P.O. BOX, HPD #, BIG.			
Deceased	100.07.75	,			110 717 0005	
05 CITY ★	OB STATE	07 ZIP CODE	14 CITY	ISSIAIE	16 ZIP CODE	
08 YEARS OF OPERATION 09 NAME OF	OWNER DURING TH	IS PERIOD		,		
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBI	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.	J	13 SIC COI	
05 CITY	OB STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
08 YEARS OF OPERATION 09 NAME OF	OWNER DURING TH	IS PERIOD				
IV. SOURCES OF INFORMATION	(Cito specific references,	e.g., state files, sample analy.	sis, reports)			
IDEM Files (Part 3	ion with N	Marlene Math	nis (IDEM-State Cleanu	ıp)		

<b>≎EPA</b>		SITE INSPE	ARDOUS WASTE SITE CTION REPORT LANSPORTER INFORMATION	I. IDENTIFIC 01 STATE 02 S IND 9	
II. ON-SITE GENERATOR					
O1 NAME		02 D+B NUMBER			
Robert Hunley		L.,	_		
03 STREET ADDRESS (P.O. Box, RFD #, etc.,	)	04 SIC CODE			
128 Monroe Street	Ine STAT	E 07 ZIP CODE			
•					•
Dugger	IN	47848	<u> </u>		
III. OFF-SITE GENERATOR(S)		02 D+B NUMBER	01 NAME		O D & D ANNIAGED
OTNAME			OTNAME	١٥	2 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.		1 04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	<u>.</u>	04 SIC CODE
		1040.0005	TO STILL THE RESULT OF THE STATE OF THE STAT		0400000
05 CITY	IOS STAT	E 07 ZIP CODE	05 CITY	06 STATE 0	7 ZIP CODE
					0002
01 NAME		02 D+B NUMBER	01 NAME		2 D+B NUMBER
•					
D3 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	106 STAT	E 07 ZIP CODE	05 CITY	06 STATE 0	7 ZIP CODE
03 011		- 0.7 EM GODE	03 0111	JOS GIAICO	7 211 0002
IV. TRANSPORTER(S)					
01 NAME		02 D+B NUMBER	01 NAME	0	2 D+B NUMBER
·				·	
03 STREET ADDRESS (P.O. Box, RFD 4, étc.)	-	04 SIC CODE	03 STREET ADDRESS (P:O. Box, RFD #, etc.)	•	04 SIC CODE
			<u> </u>		
05 CITY	06 STAT	E 07 ZIP CODE	05 CITY	06 STATE 0	7 ZIP CODE
		<u> </u>	·	<u>i</u>	
O1 NAME		02 D+B NUMBER	01 NAME	lo	2 D+B NUMBER
D3 STREET ADDRESS (P.O. Box, RFD 4, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD 4, etc.)	<u></u>	04 SIC CODE
AS ATT	loe ctat	E 07 ZIP CODE	1000000	loc example	7 710 0005
D5 CITY	Josian	O7 ZIP CODE	05 CITY	06 STATE C	·
V. SOURCES OF INFORMATION	(Cite specific references	, e.g., state files, sample analysis,	reports)		
IDEM Files (Part 3 Personal conversat Personal conversat	ion with l		s (IDEM-State Cleanup) nley (Owner)		
•				. **	

APPENDIX C

SITE PHOTOGRAPHS

SITE DUGGER ELECTRIC DATE 7-25-91

TIME 6:45 AM

DIRECTION

WEATHER LOW 80'S, CLEAR

PHOTOGRAPHED BY:

MARK JAWORSKI

SAMPLE ID # (IF APPLICABLE)

5 7B

DESCRIPTION: OIL OBTAINED FROM AN

ON SITE CASED WELL.



DATE 7-25-91

TIME 6:45 AM

DIRECTION

WEATHER LOW 80'S, CLEAR

PHOTOGRAPHED BY:

MARK JAWORSKI

SAMPLE ID # (IF APPLICABLE)

17/3

DESCRIPTION: CONSULTANTS OF TAIN ING

OIL FROM ONSITE CASED WELL



DATE 6: 45 AM 7-25-91
TIME 6: 45 AM
DIRECTION

WEATHER LOW 80'S, CLEAR

PHOTOGRAPHED BY:

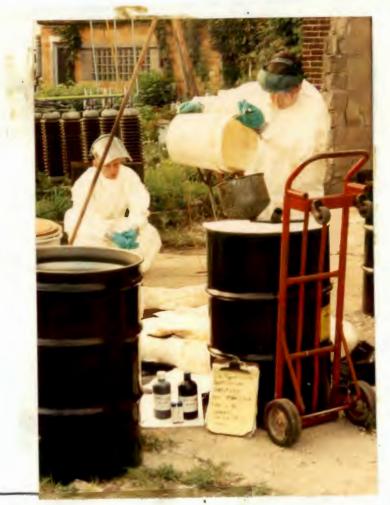
MARK JAWORSKI

SAMPLE ID # (IF APPLICABLE)

5713

DESCRIPTION: OIL OBTAINED FROM ONSITE

CASED WELL JOIL SEING DISPOSED INTO DRUMS



SITE DUGGER ELECTRIC

DATE 7-25-91

TIME 10.50 AM/11:00 AM

DIRECTION

WEATHER MID 80'S, CLEAR

PHOTOGRAPHED BY:

PAT AUSTIN

SAMPLE ID # (IF APPLICABLE)

114 /5715



DESCRIPTION: GROUND WATER SAMPLE OF THINED FROM MONITORING WELL #2 LOCATED SOUTH WEST OF DOGGER ELECTRICSITE

SITE DUGGER ELECTRIC

DATE 7-25-91

TIME 11:40 AM

WEATHER Mid 80s, CLEAR

PHOTOGRAPHED BY:

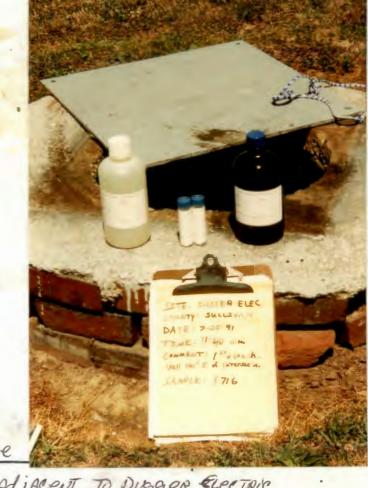
MARK JAWORSKI

SAMPLE ID # (IF APPLICABLE)

5716

DESCRIPTION: GROUND WATER WELL SAMPLE





SITE DUGGER ELECTRIC
DATE 7-25-91
TIME 12:30 PM
DIRECTION
WEATHER MID 80's, CLEAR
PHOTOGRAPHED BY:
PAT AUSTIN



DESCRIPTION: RESIDENTIAL GROUNDWATER WELL SAMPLE OBTAINED FROM

DAVID PAVIES PROPERTY

717

SITE DUGGER ELECTRIC

DATE 19-24-91

TIME 4:00 PM

DIRECTION

WEATHER MID 80'S, CLEAR

PHOTOGRAPHED BY:

PAT AUSTIN

SAMPLE ID # (IF APPLICABLE)

5722

DESCRIPTION: SEDIMENT SAMPLE OBTAINED IN



DOGGER DITCH, LESS THAN DOOFEET FROM RESIDENTIAL HOMES, 450, F. ET WEST OF DUBGER ELECTRIC

DATE 7-24-91

TIME 4:25 PM

DIRECTION

WEATHER MID 805, CLEAR

PHOTOGRAPHED BY:

PAT AUSTIN

SAMPLE ID # (IF APPLICABLE)

723



DESCRIPTION: SEPTIMENT SAMPLE OBTAINED IN DUGGER DITCH, 2400 FEET WEST OF SAMPLE STAD (30 PEET WEST RF POPLAR STREET.)

PHOTOGRAPHY	LOG	SHEET	
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Page \_\_\_\_

DATE 4.54 PM		example to 20 miles
DIRECTION		Course 5710
WEATHER 80'S, CLEAR		And Add & Mineral
DUOTOCD ADUED BY-		Des BANGERS
PHOTOGRAPHED BY:		
PAT AUSTIN		
SAMPLE ID # (IF APPLICABLE)  S724		
DESCRIPTION: SEPIMENT CAMPLE		Part Company of the C
JETIMEN ZHITE		•
at This is in Ochano Nital at all	OPATION APPROXIMATOLU 125 ADOT NORTH	EMATINESA.

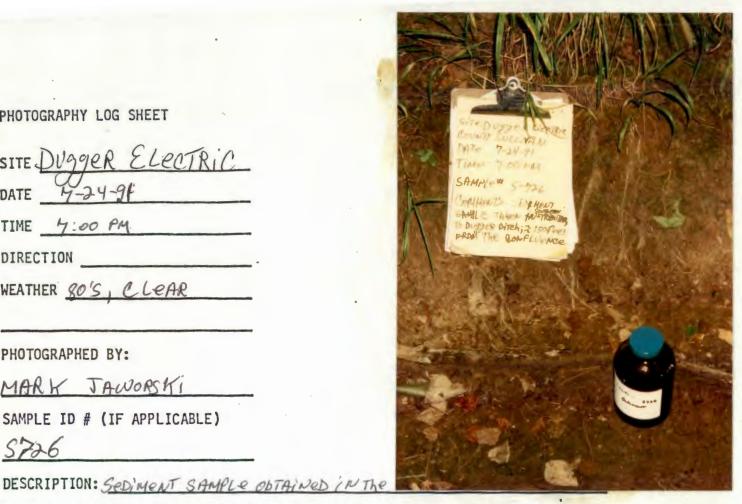
OBTAINED IN DUGGER DITCH OLD LOCATION APPROXIMATELY 125 FEET NORTH OF MASONSE.

SITE DUGGER ELECTRIC
DATE 7-24-91
TIME 6:45 PM
DIRECTION
WEATHER 80'S, CLEAR
PHOTOGRAPHED BY:
PATAUSTIN
SAMPLE ID # (IF APPLICABLE)
5725
DESCRIPTION: SPDIMONTO AMA



LOCATED 260 FEET AROM THE DITCH INVET INTO DOSGER LAKE

SITE DUGGER ELECTRIC
DATE 4-24-9F
TIME 4:00 PM
DIRECTION
WEATHER 80'S, CLEAR
PHOTOGRAPHED BY:
PHOTOGRAPHED BY: MARK JAWORSKI



SOUTHERN MOST TRIBUTARY TO DUDGER DITCH; 26150 ACET FROM THE CONFLUENCE

DATE 7-25-91 TIME 4:45 AM DIRECTION WEATHER 419% 70'S TO MADW 805 CLEAR PHOTOGRAPHED BY: PAT AUSTIN SAMPLE ID # (IF APPLICABLE) 727 DESCRIPTION: DUPLICATE OF STOR



SITE DUGGER ELECTRIC	•
DATE 7-25-91	
TIME 7:40 AM	•
DIRECTION	
WEATHER 288, CLEAR	
,	
PHOTOGRAPHED BY:	
PAT AUSTIN	_
SAMPLE ID # (IF APPLICABLE)	
5728	_
DESCRIPTION: Soil SAMPLE OF	THINKED ONSITE



215 FEET PAST OF WEST AD NECLINE; 275 PEET SOUTH OF MONTH FENCE LINE BETWEEN HOF FORMERS.

SITE DUGGER ELECTRIC

DATE 7-25-91

TIME 7:554M

DIRECTION

WEATHER CLEAR, 805

PHOTOGRAPHED BY:

PAT AUSTIN

SAMPLE ID # (IF APPLICABLE)

29



DESCRIPTION: ON SITE SOIL SAMPLE, 245 WEST OF EAST PENCE-LINE, 2160 FEBT NORTH FENCE LINE, NEXT TOTRANSFORMED #8047473

DATE 7-25-91

TIME 8:25AM

DIRECTION

WEATHER 80'S, CLEAR

PHOTOGRAPHED BY:

PAT AUSTIN

SAMPLE ID # (IF APPLICABLE)

5730

DESCRIPTION: ON SITE SOIL SAMPLO, 4 PEPT CAST OF WEST PENCE

LINE, LINE, HTABRIL OF WEST ARMED SATE AT THE FIRST SET OF TRANSFORMER.

SITE Dugger ELECTRIC
SITE POPPER CECCINIO
DATE 7-25-91
TIME 8: 45 AM
DIRECTION
WEATHER 60 80'5, CLPAR
PHOTOGRAPHED BY:
PAT AUSTIN
SAMPLE ID # (IF APPLICABLE)
731



Page

DESCRIPTION: Sepiment SAMPLE OBTAINED IN DORGER WITCH ATTHE

יHOTOGRAPHY ו	LOG	SHEET	
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Page \_\_\_\_

SITE DUGGER ELECTRIC				
		a has		ATTA
DATE 7-25-91				
TIME 9:30 AM				
DIRECTION		3	The state of the s	
WEATHER 80'S, CLEAR	1	Shore		
				1
PHOTOGRAPHED BY:	1			10
PAT AUSTIN		2/1	CA-ELLA	YG
SAMPLE ID # (IF APPLICABLE)	100 S.			
5732				W.
DESCRIPTION: BACKGROONDS	SEDIMONT SAMPLE	OBTAINED FROM	y The	
MORTHORN MOST TRIBUTARY OF	- Dugger Pitch N	ORTH OF SAMPLES	SYDD, WEST OFT	Pr'> ZAREST

SITE Dugger ELECTRIC
DATE 7-25-91
TIME 10:00 AM
DIRECTION
WEATHER 80'S, CLEAR.
PHOTOGRAPHED BY:
PAT AUSTIN
SAMPLE ID # (IF APPLICABLE)
133



DESCRIPTION:	BACKGROUGNO	SOIL SAMPLE	OBTAINE D	IN DUBBER
PARK Wes TO A	VORTHWEST OF DOO	BER ELECTRIC	,	

SITE DUGGER ELECTRIC

DATE 7-35-9]
TIME 9:30 AM

DIRECTION

WEATHER 85, CLEAR

PHOTOGRAPHED BY:

MARK TAWORSKI

SAMPLE ID # (IF APPLICABLE)

DESCRIPTION: DUPLICATE OF ST32

Page

SITE DUGGER ELECTRIC DATE 7-25-91 TIME 10:30 DIRECTION WEATHER 30'S, ELEAR-PARTLY Cloudy PHOTOGRAPHED BY: PAT AUSTIN SAMPLE ID # (IF APPLICABLE)



DESCRIPTION: LOOKING EAST INTO DUGGER ELECTRIC PACILITY AT The WEST FENCE GATE

PHOTOGRAPHY LOG SHEET	Al .	Page
DATE MYSS-91	ic	
TIME 10:30 AM		
DIRECTION		
WEATHER 80'S, PARTLY CLOUD	of-clark	
PHOTOGRAPHED BY:		
PAT AUSTIN		
SAMPLE ID # (IF APPLICABLE		
NA	50/64	
DESCRIPTION: 400 King Ex	1ST INTO THE PUBLICR E	LECTRIC FACILITY AT AF

SITE DUGGER ELECTRIC

DATE 7-25-91

TIME 10:30 A M

DIRECTION

WEATHER 80'S, CLEAR-PARTLY

CLOUDY

PHOTOGRAPHED BY:

PAT AUSTIA

SAMPLE ID # (IF APPLICABLE)

A

POINT BLIGHTLY NORTH OF WEST FENCE GATE



DESCRIPTION: NORTHWEST SECTOR OF The Dygger ELECTRIC

PHOTOGRAPHY LOG SHEET	Page	100
DATE 10:30 AM  DIRECTION  WEATHER CLEAR -PARTLY CLOUPY		
PHOTOGRAPHED BY:  PAT AUSTIN  SAMPLE ID # (IF APPLICABLE)		
DESCRIPTION: NW SECTOR OF	Dugger ELECTRIC .	
DATE TIME		

SAMPLE ID # (IF APPLICABLE)

DIRECTION

PHOTOGRAPHED BY:

WEATHER \_\_\_\_

DESCRIPTION:

# APPENDIX D

CHEMICAL ANALYSIS DATA

#### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
- EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234844
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 13:00

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. PAT AUSTIN P.O. BOX 6015 105 SOUTH MERIDIAN INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - WATER

| FINAL VOLUME

**≬ITIAL WEIGHT OR VOLUME** 

Parameter

GFAA ACID DIGEST Analyst: R. KOBZA		JS SAMPLES (CLP Analysis Date: 30-J			Test: P930.6.	0
INITIAL WEIGHT OR FINAL WEIGHT OR V			50 50	esult	Det. Limit	Units mL mL
ARSENIC GFAA (CL malyst: M. BAUER Prep: GFAA ACID			ES (CLP) ILMO		Test: M903.2.	0
ARSENIC	Parameter	And DESCRIPTION SERVICES	BDL BDL	esult	Det. Limit 0.0050	Units mg/L
LEAD GFAA (CLP) Analyst: W. WATNESS Prep: GFAA ACID		Analysis Date: 01-A AQUEOUS SAMPL			Test: M916.2.	.0
LEAD	Parameter		BDL	esult	Det. Limit 0.003	Units mg/L
SELENIUM GFAA (C Analyst: K. KEHOE Prep: GFAA ACID		Analysis Date: 05-A AQUEOUS SAMPL			Test: M928.2.	0
SELENIUM	Parameter		BDL	esult	Det. Limit 0.0050	Units mg/L
THALLIUM GFAA (C Analyst: P. SIMS Prep: GFAA ACID		Analysis Date: 30-J AQUEOUS SAMPL	UL-91 Instrumen ES (CLP) ILMC	:: GFAA 1	Test: M934.2.	0
ΓHALLIUM	Parameter		BDL	esul t	Det. Limit 0.0050	Units ma/L

Result

100

100

Units

mL

Det. Limit

MERCURY CVAA (CLP) ILMO1 Analyst: J. WARE Analysis Date: 30-JUL-91 Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SA	Instrument: CVAA MPLES (CLP) ILM01	Test: M920.2.	0
Parameter MERCURY	Result BDL	Det. Limit 0.00020	Units mg/L
FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CL Analyst: B. HAHN Analysis Date: 07-AUG-91	P) ILMO1	Test: P930.4.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 50 ::50	Det. Limit	Units mL mL
BARIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M904.3;	D
Parameter BARIUM	Result BDL	Det. Limit 0.010	Units mg/L
CADMIUM ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M908.3.	0
Parameter CADMIUM	Result BDL	Det. Limit 0.0050	Units mg/L
CHROMIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M910.3.	0
Parameter A	Result -BDL	Det. Limit 0.010	Units mg/L
NICKEL ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91- Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP	Test: M922.3.	
Parameter NICKEL	Result 0.012	Det. Limit 0.010	Units mg/L
SILVER ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M930.3.	0
Parameter SILVER	Result BDL	Det. Limit 0.010	Units mg/L
ALUMINUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M901.3.	0
Parameter ALUMINUM	Result BDL	Det. Limit 0.050	Units mg/L
ANTIMONY ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M902.3.	0
Parameter ΛΝΤΙΜΟΝΥ	Result BDL	Det. Limit 0.030	Units mg/L

EMS HERITAGE LABORATORIES, INC.		ab Sample I	D: A234844
BERYLLIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA	1 Instrument: ICP MPLES (CLP) ILM01	Test: M905.3.	o.
BERYLLIUM Parameter	Result BDL	Det. Limit 0.0050	Units mg/L
COBALT ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA	1 Instrument: ICP MPLES (CLP) ILMO1	Test: M911.3.	0
Parameter COBALT	Result BDL	Det. Limit 0.010	Units mg/L
COPPER ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA	1 Instrument: ICP MPLES (CLP) ILMO1	Test: M912.3.	0
Parameter COPPER	Result 0.024	Det. Limit 0.020	Units mg/L
prep blank was 0.036 mg/l			
VANADIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA	1 Instrument: ICP MPLES (CLP) ILMO1	Test: M938.3,	0
VANADIUM Parameter	Result	Det. Limit 0.010	Units mg/L
ZINC ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA		Test: M939.3.	0
ZINC	0.032	Det. Limit 0.020	Units mg/L
prep blank was 0.041 mg/l			
CALCIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA		Test: M909.3.	0
Parameter CALCIUM	Result BDL	Det. Limit 0.20	Units mg/L
IRON ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA	1 Instrument: ICP MPLES (CLP) ILMO1	Test: M915.3.	0
Parameter IRON	Result BDL	Det. Limit 0.020	Units mg/L
MAGNESIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-9  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA		Test: M918.3.	0
Parameter MAGNESIUM	Result BDL	Det. Limit 0.20	Units mg/L

Lab Sample ID: A234844

	(av. b.)		
MANGANESE ICP Analyst: J. CARSON Prep: FAA OR	(CLP) ILMO1  Analysis Date ICP ACID DIGESTION OF AQU	: 08-AUG-91 Instrument: ICP EOUS SAMPLES (CLP) ILM01	Test: M919.3. 0
MANGANESE	Parameter	Result BDL	Det. Limit Units 0.010 mg/L
POTASSIUM ICP Analyst: J. CARSON Prep: FAA OR		: 08-AUG-91   Instrument: ICP EOUS SAMPLES (CLP)   ILM01	Test: M926.3, 0
POTASSIUM	Parameter	Result BDL	Det. Limit Units 0.20 mg/L
SODIUM ICP (CL Analyst: J. CARSON Prep: FAA OR	P) ILMO1  Analysis Date ICP ACID DIGESTION OF AQU	: 08-AUG-91   Instrument: ICP EOUS SAMPLES (CLP)   ILM01	Test: M931.3. 0
SODIUM	Parameter	Result BDL	Det. Limit Units 0.20 mg/L
LITHIUM ICP SW Analyst: J. CARSON Prep: FAA OR		: 08-AUG-91   Instrument: ICP EOUS SAMPLES (CLP)   ILMO1	Test: M117.3, 0
LITHIUM	Parameter	Result BDL	Det. Limit Units 0.010 mg/L
MOLYBDENUM ICP Analyst: J. CARSON Prep: FAA OR		: 08-AUG-91 Instrument: ICP EOUS SAMPLES (CLP) ILMO1	Test: M121.3. 0
)LYBDENUM		BDL	0.010 mg/L
Analyst: J. CARSON	SW846-6010	: 08-AUG-91 Instrument: ICP	Test: M132.3. 0
STRONTIUM	Parameter	BDL Result V.	Det. Limit Units 0.010 mg/L
TIN ICP SW846- Analyst: J. CARSON Prep: FAA OR		: 08-AUG-91 Instrument: ICP EOUS SAMPLES (CLP) ILMO1	Test: M135,3. 0
TIN	Parameter	Result BDL	Det. Limit Units 0.050 mg/L
TITANIUM ICP S Analyst: J. CARSON Prep: FAA OR		: 08-AUG-91 Instrument: ICP EOUS SAMPLES (CLP) ILM01	Test: M136.3. 0
TITANIUM	Parameter	Result BDL	Det. Limit Units 0.010 mg/L
PCB SEPARATORY Analyst: R. MCKAIN	FUNNEL LIQUID-LIQUID EXT		Test: P230.1. 0
INITIAL WEIGHT	Parameter	Result 1050	Det. Limit Units mL mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080  Analyst: L. JULIAN Analysis Date: 04-AUG-91  Prep: PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRA	Instrument: GC/ECD CTION SW846-3510	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	0.0001	mg/L
PCB AROCHLOR 1221	BDL	0.0005	mg/L
PCB AROCHLOR 1232	BDL	0.0001	mg/L
PCB AROCHLOR 1242	BDL	0.0001	mg/L
PCB AROCHLOR 1248	BDL	0.0001	mg/L
PCB AROCHLOR 1254	BDL	0.0001	mg/L
PCB AROCHLOR 1260	BDL	0.0001	mg/L
PCB AROCHLOR 1262	BDL	0.0001	mg/L

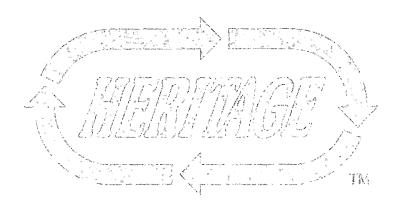
			Si
IDEM VOLATILE ORGANICS TARGET COMPOUND LIST SW84	6-8240		
Analyst: R. SHAMP Analysis Date: 02-AUG-91		Test: 0530.1.	0
Parameter	Result	Det. Limit	Units
ACETONE	BDL	20	ug/L
ACROLEIN	BDE A CALL	50	
ACRYLONITRILE	BDL	70	ug/L
BENZENE	BDL	5	
BROMODICHLOROMETHANE	BDL	5	ug/L
BROMOFORM	BDL	5	ug/L
BROMOMETHANE	BDL	10	ug/L
CARBON DISULFIDE	BDL	5	ug/L
CARBON TETRACHLORIDE	BDL	5	ug/L
CHLOROBENZENE	BDC	5	ug/L
CHLOROETHANE	BDL	10	ug/L
CHLOROFORM AT A STATE OF THE ST	BDE X4-1477 YAA	5	ug/L
HLOROMETHANE Z S THAT STORY	BDL	10	ug/L
[BROMOCHLOROMETHANE	BDU	5	ugʻ/L
CIS-1,3-DICHLOROPROPENE	BDL	5	ug/L
DICHLORODIFLUOROMETHANE	BDL	5	ug/L
1,1-DICHLOROETHANE	-BDL-	5	ug/L
1,2-DTCHLOROETHANE	BDL	5	ug/L
1,1-DICHLOROETHENE	BDL	5	ug/L
1,2-DICHLOROPROPANE	BDL	5	ug/L
ETHYLBENZENE	BDL	5	ug/L
FLUOROTRICHLOROMETHANE	BDL	5	ug/L
2-HEXANONE	BDL	10	ug/L
METHYLENE CHLORIDE	<sup>™</sup> BDL	5	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
4-METHYL-2-PENTANONE	BDL	10	ug/L
STYRENE	BDL	5	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5	ug/L
TETRACHLOROETHENE	BDL	5	ug/L
TETRAHYDROFURAN	BDL	25	
TOLUENE	BDL	5	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDE See See	5	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5	ug/L
1,1,1-TRICHLOROETHANE	BDL		ug/L
1,1,2-TRICHLOROETHANE	BDL	5	ug/L
TRICHLOROETHENE	BDL	5	ug/L
VINYL ACETATE	BDL	10	ug/L
TNYL CHLORIDE	BDL	10	
(LENE (TOTAL)	BDL	5	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
DIETHYLETHER	BDL	5 5	ug/L
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	BDL	5	ug/L

Lab Sample ID: A234844

Parameter	Result	Det. Limit	Units
ETHYL ACETATE	BDL	5	ug/L
THYLET-BUTYL ETHER	BDC	5	
SURROGATE RECOVERY			
DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	95		% Rec
BROMOFLUOROBENZENE	97		% Rec
PACKED COLUMN METHOD 8240 HAS BEEN REPLACED BY			
CAPILLARY COLUMN METHOD 8260 ON THIS INSTRUMENT			

Sample Comments

BDL Below Detection Limit



#### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
- FMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234843
901 W. MORRIS ST.	Complete	PO Number
I INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	03-SEP-91	25-JUL-91 06:45

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

Parameter

Parameter

Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1

INITIAL WEIGHT OR VOLUME

ARSENIC GFAA (CLP) ILMO1

FINAL WEIGHT OR VOLUME

Analyst: W. WATNESS

SENIC

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON
P.O. BOX 6015
105 SOUTH MERIDIAN STREET
INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA IDEM CONTROL NO.: S713

Analyst: J. WARE	<u> </u>	Analysis Date: 12-AUG-91		Test: P931.7.	U
INITIAL WEIGHT OR FINAL VOLUME	Parameter VOLUME	A	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA SW84	6-7471	Analysis Date: 14-AUG-91	Instrument: CVAA	Test: M120.2.	0
MERCURY	Parameter	144444 464	Result BDL	Det. Limit 0.050	Units mg/kg
ACID DIGESTION OF Analyst: S, STRUEWING	OILS/SOLVEN	ITS (CLP) ILMO1 Analysis Date: 29-JUL-91	761	Test: P <b>93</b> 0.0.	0
INITIAL WEIGHT OR FINAL WEIGHT OR VO			Result 2 100	Det. Limit	Units Grams mL
ACID DIGESTION OF Analyst: S. STRUEWING		ITS (CLP) ILMO1 Analysis Date: 12-AUG-91		Test: P930.0.	2
INITIAL WEIGHT OR	Parameter VOLUME		Result 2 	Det. Limit	Units Grams mL

Result

Result

2

Analysis Date: 31-JUL-91 Instrument: GEAA

100

**BDL** 

Units

mq/kq

Units,

Grams

Det. Limit

Test: M903.2. 0

0.25

Det. Limit

Parameter

UMINUM

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234843
SELENIUM GFAA (CLP) ILMO1 Analyst: K. KEHOE Analysis Date: 31-JUL-91 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	instrument: GFAA 01	Test: M928.2.	
Parameter  LocLENIUM	Result BDL	Det. Limit 0.25	Units mg/kg
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS Analysis Date: 06-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	Instrument: GFAA	Test: M934.2.	0
Parameter THALLIUM	Result BDL	Det. Limit 0.25	Units mg/kg
BARIUM ICP (CLP) ILMO1 Analysis M. JAO Analysis Date: 05-AUG-91 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	Instrument: ICP [0]	Test: <b>M9</b> 04.3.	0
Parameter BARIUM	Result	Det. Limit 0.50	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	Instrument: ICP 101	Test: M908.3.	0
Parameter CADMIUM	Result BDL	Det. Limit 0.25	Units mg/kg
CHROMIUM ICP (CLP) ILM01  Analyst: M. JAO  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	Instrument: ICP [0]	Test: M910.3.	0
Parameter	Result BDL	Det. Limit 0.50	Units mg/kg
LEAD ICP (CLP) ILMO1  Analyst: M. JAO  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM		Test: M916.3:	0
Parameter LEAD	Result	Det. Limit 2.5	Units mg/kg
NICKEL ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM		Test::M922.3.	0
Parameter NICKEL prep blank was 0.022 mg/l	Result	Det. Limit 0.50	Units mg/kg
prep brank was 0.022 mg/1			
SILVER ICP (CLP) ILMO1 Analysis Date: 14-AUG-91 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	Instrument: ICP	Test: M930.3.	0
Parameter SILVER	Result BDL	Det. Limit 0.50	Units mg/kg
ALUMINUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 07-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM	Instrument: ICP	Test: M901.3.	0

Det. Limit Units 2.5 mg/kg

Result

3.0

Lab Sample ID: A234843

ANTIMONY 1CP (CLP) ILMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis date: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AS) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AD) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AD) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AD) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AD) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AD) MODESTION OF OILS/SOLVENTS (CLP) IDMOI frailysis AG: 05-AG: 91 Instruments IDP (AD) MODESTION OF OILS/SOLVENTS (	EMS HERITAGE LABORATORIES, INC.	L	ab Sample ID: A234843
BDL 1.5 mg/kg  BERYLLIUM ICP (CLP) TIMO1 Analysis Date: 05-MOS 91 Instrument: ICP	Analyst: M. JAO Analysis Date: 05-AUG-91	Instrument: ICP	
Analyses M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) FLMOI  BERYLLIUM Parameter BDL Result BDL Result Det. Limit O.25 mg/kg  COBALT ICP (CLP) ILMOI Analysis Date: 05:AUG-97 Instrument: ICP Perp: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMOI Perp: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMOI  COBALT Parameter BDL Result Det. Limit O.50 mg/kg  COPPER ICP (CLP) ILMOI Analysis Date: 05:AUG-97 Instrument: ICP Det. Limit O.50 mg/kg  COPPER ICP (CLP) ILMOI Analysis Date: 05:AUG-97 Instrument: ICP Det. Limit O.50 mg/kg  COPPER ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMOI  COPPER Parameter 2.5 Result Det. Limit Units Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMOI  VANADIUM ICP (CLP) ILMOI Analysis Date: 05:AUG-97 Instrument: ICP Det. Limit Units D			
BDL   O.25 mg/kg	Analyst: M. JAO Analysis Date: 05-AUG-91	Instrument: ICP	Test: M905.3. 0
Analysis M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  COBALT  Parameter  BDL  Result  Det. Limit Units 0.50 mg/kg  COPPER ICP (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  Test: M912.3. 0  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  COPPER  Parameter  2.5 Result Det. Limit Units Parameter Parameter  VANADIUM ICP (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  VANADIUM ICP (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  ZINC ICP (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  ZINC ICP (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  ZINC Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  ZINC Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  ZINC Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  Analysis Date: 05-AUG-91 Instrument: ICP  ZINC Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  Test: M909.3. 0  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  Test: M915.3. 0  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  Parameter  Result  Det. Limit  Units  Analysis Date: 05-AUG-91 Instrument: ICP  Parameter  Result  Det. Limit  Units  Det.		I .	1
COPPER ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM  VANADIUM Parameter VANADIUM Parameter VANADIUM  CIP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM  Result  Det. Limit Units 10. mg/kg  IRON ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: Of-AUG-91 Instrument: ICP Parameter Result  Det. Limit Units 10. mg/kg  IRON ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: Of-AUG-91 Instrument: ICP Parameter Result Det. Limit Units	Analyst: M. JAO Analysis Date: 05-AUG-91	Instrument: 1CP [0]	Test: M911.3, 0
Analyst: N. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter		I .	
COPPER prep blank was 0.025 mg/l  VANADIUM ICP (CLP) ILMO1 Analyst: N. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM  Parameter  VANADIUM  Parameter  VANADIUM  Parameter  VANADIUM  Parameter  Analysis: Date: 05-AUG-91 Instrument: ICP Test: M938.3. 0  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter  Analysis: Date: 05-AUG-91 Instrument: ICP Test: M939.3. 0  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter  Result  Det. Limit Units  Hots: M909.3. 0  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Det. Limit Units	Analyst: M. JAO Analysis Date: 05-AUG-91	Instrument: ICP 10]	Test: M912.3. 0
VANADIUM ICP (CLP) ILMO1 Analysis Date: 05-AUG-91 Instrument: ICP Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM  Parameter  Parameter  VANADIUM  Parameter  Analysis Date: 05-AUG-91 Instrument: ICP Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  ZINC  Parameter  Analysis Date: 05-AUG-91 Instrument: ICP Parameter  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Result  Det. Limit Units 10. mg/kg  IRON ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter Result Det. Limit Units		I .	1
VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  VANADIUM  Parameter  VANADIUM  Parameter  VANADIUM  Parameter  VANADIUM  Parameter  Parameter  Analysis Date: 05-AUG-91 Instrument: ICP Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  ZINC ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 05-AUG-91 Instrument: ICP Analyst: M. JAO Analysis Date: 05-AUG-91 Instrument: ICP Analyst: M. JAO Analysis Date: 07-AUG-91 Instrument: ICP Analysis Date: 07-A	prep blank was 0.025 mg/l		
Analyst: M. JAD Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter BDL BESULT Det. Limit Units  VANADIUM  Parameter BDL BESULT Det. Limit Units  VANADIUM  ZINC ICP (CLP) ILMO1  Analyst: M. JAD Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter BDL BESULT Det. Limit Units  ZINC ICP (CLP) ILMO1  Analyst: M. JAD Prep Blank was 0.031 mg/1  CALCIUM ICP (CLP) ILMO1  Analyst: M. JAD Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter BANGO Analysis Date: 05-AUG-91 Instrument: ICP Parameter BOS AUG-91 I			1
VANADIUM  ZINC ICP (CLP) ILMO1  Analysis Date: 05-AUG-91 Instrument: ICP  Perep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter  ZINC  Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  Perep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Analysis M. JAO  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter  CALCIUM  Analysis Date: 05-AUG-91 Instrument: ICP  Parameter  Analysis Date: 05-AUG-91 Instrument: ICP  Parameter  Analysis Date: 07-AUG-91 Instrument: ICP  Parameter  Analysis Date: 07-AUG-91 Instrument: ICP  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter  Result  Det. Limit Units  Parameter  Result  Det. Limit Units  Parameter  Result  Det. Limit Units  Det. Limit Units	Analyst: M. JAO Analysis Date: 05-AUG-91		Test: M938.3. 0
Analysis Date: 05-Aug-91 Instrument: ICP Test: M939.3 0 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  ZINC Parameter Of the second of the		Result BDL	1
ZINC prep blank was 0.031 mg/l  CALCIUM ICP (CLP) ILM01 Analyst; M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM01  Parameter CALCIUM Result 30.  IRON ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: 07-AUG-91 Instrument: ICP Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM01  Parameter Result Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM01  Parameter Result Det. Limit Units  Parameter Result Det. Limit Units	Analyst: M. JAO Analysis Date: 05-AUG-91	Instrument: ICP   Two	Test: M939.3; 0
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO			
Analysis M. JAO Analysis Date: 05-AUG-91 Instrument: ICP Test: M909.3. 0 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM01  Parameter Result 30. Det. Limit Units mg/kg  IRON ICP (CLP) ILM01  Analysis M. JAO Analysis Date: 07-AUG-91 Instrument: ICP Test: M915.3. 0 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM01  Parameter Result Det. Limit Units			
IRON ICP (CLP) ILMO1  Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter Result Det. Limit Units	Analyst: M. JAO Analysis Date: 05-AUG-91	Instrument: ICP	Test: M909.3; O
Analyst: M. JAO Analysis Date: 07-AUG-91 Instrument: ICP Test: M915.3. 0 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILMO1  Parameter Result Det. Limit Units		I .	
	Analyst: M. JAO Analysis Date: 07-AUG-91		Tooks M015 7 D
	Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) ILM		Test: My13/3, U

EMS HERITAGE LABORATORIES, INC.	L	ab Sample ID: A234843
MAGNESIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL		Test: M918.3. 0
Parameter	Result BDL	Det. Limit Units 10. mg/kg
MANGANESE ICP (CLP) ILMO1  Analyst: M. JAO  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL	Instrument: ICP MO1	Test: M919.3. D
Parameter MANGANESE	Result BDL	Det. Limit Units 0.50 mg/kg
POTASSIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 07-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL	Instrument: ICP	Test: M926.3. 0
Parameter POTASSIUM	Result BDL	Det. Limit Units 10. mg/kg
SODIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL	Instrument: ICP MO1	Test: M931.3. 0
Parameter SODIUM	Result	Det. Limit Units 10. mg/kg
LITHIUM ICP SW846-6010  Analyst: M. JAO  Analysis Date: 05-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL	Instrument: ICP MOl	Test: M117.3. 0
Parameter THIUM	Result BDL	Det. Limit Units 0.50 mg/kg
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL	Instrument: ICP	Test: M121.3, 0
Parameter MOLYBDENUM	- Result	Det. Limit Units 0.50 mg/kg
STRONTIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL		Test: M132.3. 0
Parameter STRONTIUM	Result BDL	Det. Limit Units 0.50 mg/kg
TIN ICP SW846-6010  Analyst: M. JAO Analysis Date: 19-AUG-91 Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL		Test: M135.3. 0
Parameter TIN	Result BDL	Det. Limit Units 2.5 mg/kg
TITANIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: ACID DIGESTION OF OILS/SOLVENTS (CLP) IL	Instrument: ICP MOl	Test: M136.3. 0
Parameter TITANIUM	Result BDL	Det. Limit Units 0.50 mg/kg

IDEM VOLATILE ORGANICS TARGET COMPOUND LIST SW84 Analyst: R. SHAMP Analysis Date: 02-AUG-91		Test: 0530.1.	
Parameter	Result	Det. Limit	Units
ETONE	BDL	12	mg/kg
WALROLETN	BDL	31	mg/kg
ACRYLONITRILE	BDL	43	mg/kg
BENZENE	5.5	3,1	mg/kg
BROMODICHLOROMETHANE	BDL	3.1	mg/kg
BROMOFORM	BDL	3.1	mg/kg
BROMOMETHANE	BDL	6.3	mg/kg
CARBON DISULFIDE	BDL	3.1	mg/kg
CARBON TETRACHLORIDE	BDL	3.1	mg/kg
	BDL	3.1	
CHLOROBENZENE			mg/kg
CHLOROETHANE	BDL	6.3	mg/kg
CHLOROFORM	BDL	3.1	mg/kg
CHLOROMETHANE	BDL	6.3	mg/kg
DIBROMOCHLOROMETHANE	BDL	3.1	mg/kg
CIS-1,3-DICHLOROPROPENE	BDL	3.1	mg/kg
DICHLORODIF LUOROMETHANE	BDL	3.1	mg/kg
1,1-DICHLOROETHANE	BDL	3.1	mg/kg
1,2-DICHLOROETHANE	BDL	3.1	mg/kg
1,1-DICHLOROETHENE	BDL	3.1	mg/kg
1,2-DICHLOROPROPANE	BDL	3.1	mg/kg
ETHYLBENZENE	EST 180	3.1	mg/kg
ELUOROTRICHLOROMETHANE	BDL	3.1	mg/kg
2-HEXANONE	BDL	6.3	mg/kg
METHYLENE CHLORIDE	BDL	3.1	mg/kg
METHYL ETHYL KETONE	BDL	6.3	mg/kg
METHYL-2-PENTANONE	BDL	6.3	mg/kg
YRENE	BDL	3.1	mg/kg
1,1,2,2-TETRACHLOROETHANE	BDL // /	3.1	mg/kg
TETRACHLOROETHENE	BDL	3.1	mg/kg
TETRAHYDROFURAN	BDL	16	
TOLUENE	I-68	3.1	mg/kg
1,2-DICHLOROETHENE (TOTAL)	BDL	3.1	
TRANS-1,3-DICHLOROPROPENE	BDL		0, 0
		3.1	mg/kg
1,1,1-TRICHLOROETHANE	BDL	3.I	mg/kg
1,1,2-TRICHLOROETHANE	BDL	3.1	mg/kg
TRICHLOROETHENE	BDL		mg/kg
VINYL ACETATE	BDL	6.3	mg/kg
VINYL CHLORIDE	BDL	6.3	
XYLENE (TOTAL)	EST 900	3.1	mg/kg
2-CHLOROETHYLVINYLETHER	BDL	Wikitalik W	mg/kg
DIETHYLETHER	BDL		mg/kg
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	BDL		mg/kg
ETHYL ACETATE	BDL		mg/kg
METHYL-T-BUTYL ETHER	BDL	50	mg/kg
SURROGATE RECOVERY	1		
DICHLOROETHANE-D4			% Rec
TOLUENE-D8	*		% Rec
BROMOFLUOROBENZENE	*		% Rec
DILUTION FACTOR 1:630			
CKED COLUMN METHOD 8240 HAS BEEN REPLACED BY			
LAPILLARY COLUMN METHOD 8260 ON THIS INSTRUMENT			
ALSO DETECTED:			
NONANE	EST 190 RT=26.79		
			Dago 5

Lab Sample ID: A234843

Parameter		Result	Det. Limit	Units
PROPYL CYCLOHEXANE		EST 370 RT=29.74	•	
lede CANE	• 6	EST 230 RT=31.5		
OPYL BENZEN		EST 270 RT=31.94		
METHYL BENZENE		FST 510 RT=32 29		
TRIMETHYL BENZENE		EST 630 RT=33.77		İ
TRIMETHYL BENZENE	1 100 100 100 100 100 100 100 100 100 1	EST 260 RT=35.26		
METHYL PROPYL BENZENE		EST 290 RT=35.7		
ETHYL DIMETHYL BENZENE				
1,4-DICHLOROBENZENE		EST 150 RT=35.38		
NOTE: * DILUTED OUT			-	

IDEM VOLATILE ORGANICS TARGET COMPOUND LIST SW Analyst: R. SHAMP Analysis Date: 05-AUG-9		Test: 0530.1.	1
Parameter	Result	Det. Limit	Units
ACETONE	BDL	120	mg/kg
ACROLEIN	BDL	310	mg/kg
ACRYLONITRILE	BDL	430	mg/kg
BENZENE PROMODICUL ODOMETUANE	BDL	31	mg/kg
BROMODICHLOROMETHANE	BDL	31	mg/kg
BROMOFORM	BDL BDL		mg/kg
BROMOMETHANE CCARBON DISULFIDE	BDL	63	mg/kg
CARBON TETRACHLORIDE	BDL	31 31	mg/kg
CHLOROBENZENE	BDL	31 31	mg/kg
CHLOROETHANE	BDL	63	mg/kg mg/kg
CHLOROFORM A TOTAL OF THE TOTAL OF T		31	mg/kg
TILOROMETHANE TO THE TOTAL TO T	BDL	63	mg/kg
BROMOCHLOROMETHANE ////////////////////////////////////	'wasdey tuzwe ile elîneyê heza	1	mg/kg
CIS-1,3-DICHLOROPROPENE	BDL	31	mg/kg
DICHLORODIFLUOROMETHANE	BDL	31	mg/kg
1,1-DICHLOROETHANE	BDL	31	mg/kg
1,2-DICHLOROETHANE	BDL		mg/kg
1,1-DICHLOROETHENE	BDL	31	mg/kg
1,2-DICHLOROPROPANE	BDL		mg/kg
ETHYLBENZENE	190	31	mg/kg
FLUOROTRIGHLOROMETHANE	BDL		mg/kg
2-HEXANONE	BDL	63	mg/kg
METHYLENE CHLORIDE	BDL		mg/kg
METHYL ETHYL KETONE	BDL	63	mg/kg
4-METHYL-2-PENTANONE	BDE FOR VALUE OF	63	mg/kg
STYRENE	BDL	31	mg/kg
1,1,2,2-TETRACHLOROETHANE	-BDL	31	mg/kg
TETRACHLOROETHENE	BDL	31	mg/kg
TETRAHYDROFURAN	BDL	160	mg/kg
TOLUENE	73	31	mg/kg
1,2-DICHLOROETHENE (TOTAL)	BDL		mg/kg
TRANS-1,3-DICHLOROPROPENE	BDL	31	mg/kg
1, 1, 1-TRICHLOROETHANE	BDL		mg/kg
1,1,2-TRICHLOROETHANE	BDL	31	mg/kg
TRICHLOROETHENE	BDL	31	mg/kg
VINYL ACETATE	BDL	63	mg/kg
VINYL CHLORIDE	BDL	63	mg/kg
(LENE (TOTAL)	1100	31	mg/kg
	BDL		mg/kg
DIETHYLETHER 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	BDL BDL	6.3	mg/kg
1,1,2=tritoneuru=1,2,2=trifeUURUEITANE		J	mg/kg Page 6

### Lab Sample ID: A234843

		· · · · · · · · · · · · · · · · · · ·	
Parameter	Result	Det. Limit	Units
ETHYL ACETATE	BDL	6.3	mg/kg
MFTHYL-T-BUTYL ETHER	BDL	500	mg/kg
RROGATE RECOVERY			
DICHLOROETHANE-D4			% Rec
TOLUENE-D8	*		% Rec
BROMOFLUOROBENZENE	*		% Rec
PACKED COLUMN METHOD 8240 HAS BEEN REPLACED BY			
CAPILLARY COLUMN METHOD 8260 ON THIS INSTRUMENT			
DILUTION FACTOR 1:6300			
ALSO DETECTED			
UNKNOWN HYDROCARBON	EST 170 RT=24.94		
NONANE	EST 340 RT=26.74		
DIMETHYL OCTANE	EST 150 RT=28.32		
UNKNOWN	EST 630 RT=29.66		
DECANE	EST 650 RT=31.42		
In the second se	EST 030 KT=31.42		1
The same of the sa			
ETHYL METHYL BENZENE	EST 630 RT=32.24		
TRIMETHYL BENZENE	EST 190 RT=32.4		
TRIMETHYL BENZENE	EST 660 RT=33.67		
METHYL PROPYL BENZENE	EST 370 RT=35.6		
NOTE: * SURROGATES DILUTED OUT	EW HARDEN W. M. MINISTER CO. P. T.		
A Management of the second sec	Y The same of the		

PCB OIL EXTRACTION SW846	3580		
Analyst: A. HOAGLAND	35_	Analysis Date: 29-JUL-91 Test: P229.1.	0
Paramé	ter	Result Det. Limit	Units
IITIAL WEIGHT OR VOLUME		1.7777, 1/3 / 1.1910.0482377 X 27	Grams
FINAL VOLUME	<b>5</b> 5	<u></u>	mL.

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB OIL EXTRACTION SW846-3580	Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	20	mg/kg
PCB AROCHLOR 1221	BDL	100	mg/kg
PCB AROCHLOR 1232	BDL	20	mg/kg
PCB AROCHLOR 1242	BDL	20	mg/kg
PCB AROCHLOR 1248	BDL	20	mg/kg
PCB AROCHLOR 1254	BDL	20	mg/kg
PCB AROCHLOR 1260	940	20	mg/kg
PCB AROCHLOR 1262	BDL	20	mg/kg
NOTE: SAMPLE DILUTED 1:20 BECAUSE OF HIGH 1260			

	Sample Comments
See Note for Parameter	
Below Detection Limit	

EST Estimated Value RT Retention Time

BDL

#### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234845
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	25-JUL-91 10:50

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - WATER

S714

IITIAL WEIGHT OR VOLUME

I TINAL VOLUME

.:- '2'

GFAA ACID DIGESTION OF AQUEOU Analyst: R. KOBZA	Analysis Date: 30-JUL-91	VI	Test: P930.6.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME		Result 50 50	Det. Limit	Units mL mL
ARSENIC GFAA (CLP) ILMO1 inalyst: M. BAUER Prep: GFAA ACID DIGESTION OF	Analysis Date: 30-JUL-91 AQUEOUS SAMPLES (C	Instrument: GFAA LP) ILMO1	Test: M903.2.	0
Parameter \ ARSENIC		Result BDL	Det. Limit 0.0050	Units mg/L
LEAD GFAA (CLP) ILMO1 Analyst: W. WATNESS Prep: GFAA ACID DIGESTION OF	Analysis Date: 01-AUG-91 AQUEOUS SAMPLES (C	Instrument: GFAA	Test: M916.2.	0
Parameter LEAD		Result BDL	Det. Limit 0.003	Units mg/L
SELENIUM GFAA (CLP) ILMO1 Analyst: K. KEHOE Prep: GFAA ACID DIGESTION OF	Analysis Date: 05-AUG-91 AQUEOUS SAMPLES (C	Instrument: GEAA LP) ILMO1	Test: M928.2.	0
Parameter SELENIUM		Result BDL	Det. Limit 0.0050	Units mg/L
THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Prep: GFAA ACID DIGESTION OF	Analysis Date: 30-JUL-91 AQUEOUS SAMPLES (C		Test: M934.2.	0
Parameter THALLIUM		Result BDL	Det. Limit 0.0050	Units mg/L
MERCURY CVAA ACID DIGESTION C	F AQUEOUS SAMPLES ( Analysis Date: 29-JUL-91	CLP) ILMO1	Test: P931.6.	0
Parameter	Anatysis bate: 29-30L-91	Result	Det. Limit	Units

100

100

mL

MERCURY CVAA (CLP) ILMO1 Analysis Date: 30-JUL-91 Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SA	Instrument: CVAA MPLES (CLP) ILMO1	Test: M920.2.	0
Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L
FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CL Analyst: B. HAHN Analysis Date: 07-AUG-91	P) ILMO1	Test: P930.4.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		ML
FINAL WEIGHT OR VOLUME	50		ML
BARIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M904.3.	0
Parameter	Result	Det. Limit 0.010	Units
BARIUM	0.039		mg/L
CADMIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M908.3.	0
Parameter CADMIUM	Result	Det. Limit	Units
	BDL	0.0050	mg/L
CHROMIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M910.3.	
Parameter \ IROMIUM	Résult	Det. Limit	Units
	BDL	0.010	mg/L
NICKEL ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M922.3.	0
Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.010	mg/L
SILVER ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M930.3.	0
Parameter	Result	Det. Limit 0.010	Units
SILVER	BDL		mg/L
ALUMINUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M901.3.	0
Parameter ALUMINUM	Result	Det. Limit	Units
	0.50	0.050	mg/L
ANTIMONY ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: <b>M9</b> 02. <b>3</b> .	0
Parameter ^^ITIMONY	Result	Det. Limit	Units
	BDL	0.030	mg/L

EMS HERITAGE LABORATORIES, INC.	L	ab Sample ID	: A234845
BERYLLIUM ICP (CLP) ILMO1	1	Test: M905.3. (	n
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	LES (CLP) ILMO1	1851: M903.3. (	,
Parameter   BERYLLIUM	Result BDL	Det. Limit 0.0050	Units mq/L
	DDL	0.0030	1119/ L
COBALT ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91	Instrument: ICP	Test: M911.3. (	)
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	LES (CLP) ILM01		
Parameter COBALT	Result BDL	Det. Limit 0.010	Units ma/L
	552		
COPPER ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91	Instrument: ICP	Test: M912.3. (	)
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	LES (CLP) ILMO1	T	
Parameter COPPER	Result 0.021	Det. Limit 0.020	Units mg/L
prep blank was 0.036 mg/l			
L		· <u> </u>	
VANADIUM ICP (CLP) ILMO1			
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M938.3. (	)
Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L
ZINC ICP (CLP) ILMO1	15.00 AN THE Y	Test: M939.3.	
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: Mysy.s. I	J
Parameter (1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/		Det. Limit	Units
ZINC prep blank was 0.041 mg/l	0.004	0.020	mg/ L
The same of the sa	and the second of the second o		
CALCIUM ICP (CLP) ILMO1			
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP	Test: M909.3.	)
Parameter	Result	Det. Limit	Units
CALCIUM	13.	0.20	mg/L
IRON ICP (CLP) ILMO1			
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M915.3.	ם כ
Parameter	Result	Det. Limit	Units
IRON	0.43		mg/L
MAGNESIUM ICP (CLP) ILM01			
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) [ MO]	Test: M918.3.	0
Parameter	Result	Det. Limit	Units
MAGNESIUM	6.4	0.20	mg/L

Lab Sample ID: A234845

### EMS HERITAGE LABORATORIES, INC.

EMS HERITAGE LABOR	RATORIES, INC.	L	ab Sample I	J: AZ34845
MANGANESE ICP (CLI Analyst: J. CARSON Prep: FAA OR ICP	P) ILMO1 Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAMI		Test: M919.3.	0
MANGANESE	Parameter	Result 0.100	Det. Limit 0.010	Units mg/L
POTASSIUM ICP (CLI Analyst: J. CARSON Prep: FAA OR ICP	P) ILMO1  Analysis Date: 08-AUG-91  ACID DIGESTION OF AQUEOUS SAM	Instrument: ICP PLES (CLP) ILMO1	Test: M926.3.	0
POTASSIUM	Parameter	Result 2.7	Det. Limit 0.20	Units mg/L
SODIUM ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP		Instrument: ICP PLES (CLP) ILMOI	Test: M931.3.	0
SODIUM	Parameter	Result 180	Det. Limit 0.20	Units mg/L
LITHIUM ICP SW846 Analyst: J. CARSON Prep: FAA OR ICP	-6010 Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAM		Test: M117.3.	D
LITHIUM	Parameter	Result 0.011	Det. Limit 0.010	Units mg/L
MOLYBDENUM ICP SW Analyst: J. CARSON Prep: FAA OR ICP	846-6010  Analysis Date: 08-AUG-91  ACID DIGESTION OF AQUEOUS SAM		Test: M121.3.	0
)LYBDENUM	Parameter	0.012	Det. Limit 0.010	Units mg/L
STRONTIUM ICP SW84 Analyst: J. CARSON Prep: FAA OR ICP	46-6010  Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAM	Instrument: ICP	Test: M132.3.	0
STRONTIUM	Parameter	Result IVI 0.12	Det. Limit 0.010	Units mg/L
TIN ICP SW846-601	O Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAM		Test: M135,3.	0
TIN	Parameter	Result BDL	Det. Limit 0.050	Units mg/L
TITANIUM ICP SW84 Analyst: J. Carson Prep: FAA OR ICP	6-6010 Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAM		Test: M136.3.	0
TITANIUM	Parameter	Result BDL	Det. Limit 0.010	Units mg/L
PCB SEPARATORY FU	NNEL LIQUID-LIQUID EXTRACTION Analysis Date: 29-JUL-91	SW846-3510	Test: P230.1.	0
	Parameter VOLUME	Result 1050	Det. Limit	Units mL

Lab Sample ID: A234845

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRA	Instrument: GC/ECD CTION SW846-3510	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	0.0001	mg/L
PCB AROCHLOR 1221	BDL	0.0005	mg/L
PCB AROCHLOR 1232	BDL	0.0001	mg/L
PCB AROCHLOR 1242	BDL	0.0001	mg/L
PCB AROCHLOR 1248	BDL	0.0001	mg/L
PCB AROCHLOR 1254	BDL	0.0001	mg/L
PCB AROCHLOR 1260	BDL	0.0001	mg/L
PCB AROCHLOR 1262	BDL	0.0001	mg/L

Analyst: R. SHAMP Analysis Date: 01-AUG-9		Test: 0530.1.	T
Parameter ACETONE	Result BDL	Det. Limit 20	Units ug/L
ACROLEIN	BDL	50	
ACRYLONITRILE	BDL	70	ug/L
BENZENE	BDL	5	ug/L
BROMODICHLOROMETHANE	BDL	5	ug/L
BROMOFORM	BDL	5	
BROMOMETHANE	BDL	10	ug/L
CARBON DISULFIDE	BDL	5	ug/L
CARBON TETRACHLORIDE	BDL	5	ug/L
CHLOROBENZENE A CONTROL OF THE CONTR	BDE	5	
CHLOROETHANE	BDL	10	ug/L
CHLOROFORM	BDL	5	ug/L
HLOROMETHANE STATE OF THE STATE	BDL'	10	ug/L
[BROMOCHLOROMETHANE	BDL V	5	ug/L
CIS-1,3-DICHLOROPROPENE	E BDL		ug/L
DICHLORODIFLUOROMETHANE A A	BDL	5	ug/L
1,1-DICHLOROETHANE	BDL	5	ug/L
1,2-DICHLOROETHANE	BDL	5	
1,1-DICHLOROETHENE	BDL	5	ug/L
1,2-DICHLOROPROPANE	::BDL	5	ug/L
ETHYLBENZENE	BDL	5	ug/L
FLUOROTRICHLOROMETHANE	BDL	5	ug/L
2-HEXANONE	BDL	10	ug/L
METHYLENE CHLORIDE	BDL	5	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
4-METHYL-2-PENTANONE	BDL	10	ug/L
STYRENE	BDL	5	ug/L
1,1,2,2-TETRACHLOROETHANE	BDE	5	ug/L
TETRACHLOROETHENE	BDL	5	ug/L
TETRAHYDROFURAN	BDL	25	
TOLUENE	BDL	5	ug/L
1,2=DICHLOROETHENE (TOTAL)	BDL	5	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL		ug/L
1,1,1=TRICHLOROETHANE	BDL		ug/L
1,1,2-TRICHLOROETHANE	BDL	<u> </u>	ug/L
TRICHEOROETHENE	BDL	5	ug/L
/INYL ACETATE	BDL	10	ug/L
*TNYL CHLORIDE	BDL	10	ug/L
(LENE (TOTAL)	BDL	5	ug/L
z-CHLORÒETHYLÝINYLETHER	BDL	10	ug/L
DIETHYLETHER	BDL	5	ug/L
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	BDL	5	ug/L

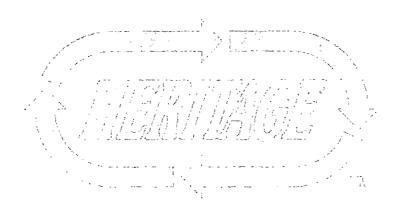
Page 5

Lab Sample ID: A234845

Parameter	Result	Det. Limit	Units
ETHYL ACETATE	BDL	5	ug/L
THYL-T-BUTYL ETHER		5	ug/L
SURROGATE RECOVERY			
DICHLOROETHANE-D4	100		0/ Da -
TOLUENE-D8	06		% Rec
BROMOFLUOROBENZENE	07		% Rec
PACKED COLUMN METHOD 8240 HAS BEEN REPLACED BY	## <b>##</b> ################################		/o Nec
CAPILLARY COLUMN METHOD 8240 HAS BEEN REFEACED BY			
CALLED IN COLORD HELLIOUS OZOGO ON THE ENGLISHMENT	iliana.	<u> </u>	

Sample Comments

BDL Below Detection Limit



### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
- TMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234846
901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	25-JUL-91 11:00

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - WATER

S715

GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM Analyst: R. KOBZA Analysis Date: 30-JUL-91	01	Test: P930.6.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 50	Det. Limit	Units mL mL
ARSENIC GFAA (CLP) ILMO1 Inalyst: M. BAUER Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (C	LP) ILMO1 📉 📈	Test: M903.2.	0
Parameter Color Market Color C	Result	Det. Limit 0.0050	Units mg/L
LEAD GFAA (CLP) ILMO1  Analyst: W. WATNESS Analysis Date: 01-AUG-91  Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (C	Instrument: GFAA LP) ILMO1	Test: M916.2.	0
Parameter _EAD	Result BDL	Det. Limit 0.003	Units mg/L
SELENIUM GFAA (CLP) ILMO1 Analyst: K. KEHOE Analysis Date: 05-AUG-91 Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (C	Instrument: GFAA LP) ILMO1	Test: M928.2.	0
Parameter SELENIUM	Result BDL	Det. Limit 0.0050	Units mg/L
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS  Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (C	Instrument: GFAA LP) ILMO1	Test: M934.2.	0
Parameter   THALLIUM	Result BDL	Det. Limit 0.0050	Units mg/L
MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES ( Analysis Date: 29-JUL-91	CLP) ILMO1	Test: P931.6.	0
Parameter NITIAL WEIGHT OR VOLUME INAL VOLUME	Result 100 100	Det. Limit	Units ML

MERCURY CVAA (CLP) *nalyst: J. WARE Prep: MERCURY CVA	ILMO1  Analysis Date: 30-JUL-91 A ACID DIGESTION OF AQUEOUS SA  Parameter	Instrument: CVAA MPLES (CLP) ILMO1 Result	Test: M920.2.	O Units
MERCURY		BDL	0.00020	
FAA OR ICP ACID DI Analyst: B. HAHN	GESTION OF AQUEOUS SAMPLES (CL Analysis Date: 07-AUG-91	P) ILMO1	Test: P930.4.	0
INITIAL WEIGHT OR V		Result 50	Det. Limit	Units ML ML
[00000000000000000000000000000000000000				
BARIUM ICP (CLP) I Analyst: J. CARSON Prep: FAA OR ICP	Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M904.3.	0
BARIUM	Parameter	Result 0.043	Det. Limit 0.010	Units mg/L
CADMIUM ICP (CLP)	ILMO1			
Analyst: J. CARSON	Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAMP	LES (CLP) ILM01	Test: M908.3.	
CADMIUM	Parameter	Result BDL	Det. Limit 0.0050	Units mg/L
Analyst: J. CARSON	ILMO1  Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: <b>M91</b> 0.3.	0
HROMIUM	Parameter	-Result	Det. Limit 0.010	Units mg/L
NICKEL ICP (CLP) I Analyst: J. CARSON Prep: FAA OR ICP	LMO1  Analysis Date: 08-AUG-91  ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M922.3.	0
NICKEL	Parameter	Result BDL	Det. Limit 0.010	Units mg/L
SILVER ICP (CLP) I	MO1			
Analyst: J. CARSON		Instrument: ICP	Test: M930.3.	0
SILVER	Parameter	Result BDL	Det. Limit 0.010	Units mg/L
ALUMINUM ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP	ILMO1 Analysis Date: 08-AUG-91 ACID DIGESTION OF AQUEOUS SAMP		Test: M901.3.	0
ALUMINUM	Parameter	Result 0.62	Det. Limit 0.050	Units mg/L
ANTIMONY ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP		Instrument: ICP LES (CLP) ILMO1	Test: M902.3.	0
^NTIMONY	Parameter	Result BDL	Det. Limit 0.030	Units mg/L

EMS HERITAGE LABORATORIES, INC.		Lab Sample II	D: A234846
BERYLLIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M905.3.	
Parameter BERYLLIUM	Result BDL	0.0050	Units mg/L
COBALT ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILM01	Test: M911.3.	D
Parameter COBALT	Result BDL	Det. Limit 0.010	Units mg/L
COPPER ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M912.3.	0
Parameter COPPER	Result 0.029	Det. Limit 0.020	Units mg/L
prep blank was 0.036 mg/l			
VANADIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M938.3.	0
VANADIUM Parameter	Result BDL	Det. Limit 0.010	Units mg/L
ZINC ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMI	Instrument: ICP PLES (CLP) ILM01	Test: M939.3.	0
ZINC	Result 0.076	Det. Limit 0.020	Units mg/L
prep blank was 0.041 mg/l			
CALCIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMI	Instrument: ICP PLES (CLP) ILM01	Test: M909.3.	0
Parameter CALCIUM	Result	Det. Limit 0.20	Units Mg/L
IRON ICP (CLP) ILM01 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAM		Test: M915.3.	0
Parameter IRON	Result 1.0	Det. Limit 0.020	Units mg/L
MAGNESIUM ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAM		Test: M918.3.	
Parameter MAGNESIUM	Result 6.6	Det. Limit 0.20	Units mg/L

LIIS IILKI IAGE LAD	UKATURIES, INC.		Lab Sample 11	J. NESTUTU
MANGANESE ICP (C Analyst: J. CARSON Prep: FAA OR IC	LP) ILMO1  Analysis Date: 08-AUG-P P ACID DIGESTION OF AQUEOUS SA	91 Instrument: ICP AMPLES (CLP) ILMOI	Test: M919.3.	0
MANGANESE	Parameter	Result 0.11	Det. Limit 0.010	Units mg/L
POTASSIUM ICP (C Analyst: J. CARSON Prep: FAA OR IC	CLP) ILMO1  Analysis Date: 08-AUG- P ACID DIGESTION OF AQUEOUS SA	91 Instrument: ICP AMPLES (CLP) ILM01	Test: M926.3.	0
POTASSIUM	Parameter	Result 3.2	Det. Limit 0.20	Units mg/L
SODIUM ICP (CLP) Analyst: J. CARSON Prep: FAA OR IC	ILMO1  Analysis Date: 08-AUG-	91 Instrument: ICP AMPLES (CLP) ILM01	Test: M931.3.	0
SODIUM	Parameter	Result 190	Det. Limit 0.20	Units mg/L
LITHIUM ICP SW84 Analyst: J. CARSON Prep: FAA OR IC	6-6010  Analysis Date: D8-AUG- P ACID DIGESTION OF AQUEOUS SA	91 Instrument: ICP AMPLES (CLP) ILMO1	Test: M117.3.	0
LITHIUM	Parameter	Result 0.013	Det. Limit 0.010	Units mg/L
MOLYBDENUM ICP S Analyst: J. CARSON Prep: FAA OR IC	W846-6010  Analysis Date: 08-AUG- P ACID DIGESTION OF AQUEOUS SA	91 Instrument: ICP	Test: M121.3.	0
DLYBDENUM	Parameter	Result / 0.012- / -	Det. Limit 0.010	Units mg/L
STRONTIUM ICP SW Analyst: J. CARSON Prep: FAA OR IC	/846-6010	91 Instrument: ICP AMPLES (CLP) ILM01	Test: M132.3.	0
STRONTIUM	Parameter	Result (IV)	Det. Limit 0.010	Units mg/L
TIN ICP SW846-60 Analyst: J. Carson Prep: FAA OR IC	OlO  Analysis Date: 08-AUG- P ACID DIGESTION OF AQUEOUS SA	91 Instrument: ICP AMPLES (CLP) ILMO1	Test: M135.3.	0
TIN	Parameter	Result BDL	Det. Limit 0.050	Units mg/L
TITANIUM ICP SW8	346-6010  Analysis Date: 08-AUG- CP ACID DIGESTION OF AQUEOUS S/		Test: M136.3.	0
Prep: FAA OR IC				11-24
Prep: FAA OR IC	Parameter	Result BDL	Det. Limit 0.010	Units mg/L
TITANIUM		BDL N SW846-3510	I .	mg/L

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91	Instrument: GC/ECD	Test: 0301.2.	0
Prep: PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRA	CTION SW846-3510		•
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	0.0001	mg/L
PCB AROCHLOR 1221	BDL	0.0005	mg/L
PCB AROCHLOR 1232	BDL	0.0001	mg/L
PCB AROCHLOR 1242	BDL	0.0001	mg/L
PCB AROCHLOR 1248	BDL	0.0001	mg/L
PCB AROCHLOR 1254	BDL	0.0001	mg/L
PCB AROCHLOR 1260	BDL	0.0001	mg/L
PCB AROCHLOR 1262	BDL	0.0001	mq/L

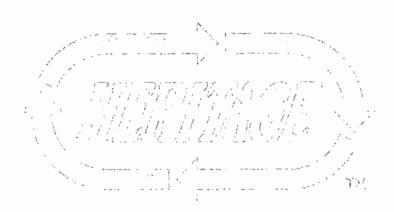
IDEM VOLATILE ORGANICS TARGET COMPOUND LIST SW84	6-8240		
Analyst: R. SHAMP Analysis Date: 01-AUG-91	Instrument: GC/MS VOA	Test: 0530.1.	0
Parameter	Result	Det. Limit	Units
ACETONE	BDL	20	ug/L
ACROLEIN	BDL	50	ug/L
ACRYLONITRILE	BDL	70	ug/L
BENZENE	BDL		ug/L
BROMODICHLOROMETHANE	BDL	5	ug/L
BROMOFORM	BDL		ug/L
BROMOMETHANE	BDL	10	ug/L
CARBON DISULFIDE	BDL		ug/L
CARBON TETRACHLORIDE	BDL	5	ug/L
CHLOROBENZENE	BDL		ug/L
CHLOROETHANE	BDL	10	ug/L
CHLOROFORM ILOROMETHANE	BDL BDL A TARE		ug/L
IBROMOCHEOROMETHANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	i	ug/L
DICHLORODIFLUOROMETHANE	BDL	5 5	ug/L
1,1-DICHLOROETHANE	BDL	5	ug/L ug/L
1,2-DICHLOROETHANE	BDL	5	ug/L ug/L
1,1-DICHLOROETHENE	BDL	5	ug/L
1,2-DICHLOROPROPANE	BDL		ug/L
ETHYLBENZENE	BDL	5	ug/L
FLUOROTRICHLOROMETHANE	BDL		ug/L
2-HEXANONE	BDL	10	ug/L
METHYLENE CHLORIDE	BDL	5	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
4-METHYL-2-PENTANONE	BDE	10	
STYRENE	BDL	5	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5	ug/L
TÉTRACHLOROETHENE	BDL	5	ug/L
TETRAHYDROFURAN	BDL		ug/L
TOLUENE	BDL	5	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDL	5	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5	ug/L
1,1,1=TRICHLOROETHANE	BDL	5	ug/L
1,1,2-TRICHLOROETHANE	BDL	5	ug/L
TRICHLOROETHENE	BDL	5	ug/L
VINYL ACETATE	BDL	10	ug/L
INYL CHLORIDE	BDL	10	ug/L
YLENE (TOTAL)	BDL	5	ug/L
ZECHLOROETHYLVINYLETHER	BDL	10	ug/L
DIETHYLETHER	BDL	5	ug/L
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	BDL	5	ug/L

Lab Sample ID: A234846

Parameter	Result	Det. Limit	Units
ETHYL ACETATE	BDL	5	ug/L
METHYL-T-BUTYL ETHER	BDL	5	ug/L
SURROGATE RECOVERY			
D1CHLOROETHANE-D4	MANU:		% Rec
TOLUENE-D8	100	r y ji ti kiri nakarkiya dara	% Kec
BROMOFLUOROBENZENE			% Kec
PACKED COLUMN METHOD 8240 HAS BEEN REPLACED BY		1 1- <del></del>	
CAPILLARY COLUMN METHOD 8260 UN THIS INSTRUMENT			

Sample Comments

Below Detection Limit BDL



Service Location	Received	Lab ID
<sup>1</sup> EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234847
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	<b>70</b> D
(317)243-8305	Printed	Sampled
	26-AUG-91	25-JUL-91 11:40

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - WATER

S716

GFAA ACID DIGESTION OF Analyst: R. KOBZA	AQUEOUS SAMPLES ( Analysis Date:	CLP) ILM01 30-JUL-91	Test: P930.6. 0
Pa INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME		Result 50	Det. Limit Units ML ML
ARSENIC GFAA (CLP) ILM inalyst: M. BAUER Prep: GFAA ACID DIGES	Analysis Date: STION OF AQUEOUS SA		Test: M903.2. 0
ARSENIC	rameter	-Result BDL	Det. Limit Units 0.0050 mg/L
LEAD GFAA (CLP) ILMO1 Analyst: W. WATNESS Prep: GFAA ACID DIGES	Analysis Date:	01-AUG-91 Instrument: GFAA MPLES (CLP) ILMO1	Test: M916.2. O
Pa LEAD	rameter	Result 0.0031	Det. Limit Units 0.003 mg/L
SELENIUM GFAA (CLP) II Analyst: K. KEHOE Prep: GFAA ACID DIGES	Analysis Date:	05-AUG-91 Instrument: GFAA MPLES (CLP) ILMO1	Test: M928.2. 0
SELENIUM Pa	rameter	Result BDL	Det. Limit Units 0.0050 mg/L
THALLIUM GFAA (CLP) IL Analyst: P. SIMS Prep: GFAA ACID DIGES	Analysis Date:	30-JUL-91 Instrument: GFAA MPLES (CLP) ILMO1	Test: M934.2. 0
THALLIUM  DILUTION = 1:2	rameter	Result BDL	Det. Limit Units 0.010 mg/L

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234847
MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES ( Analysis Date: 29-JUL-91	CLP) ILMO1	Test: P931.6.	0
Parameter   ITIAL WEIGHT OR VOLUME	Result 100	Det. Limit	Units ML
FINAL VOLUME	100		mL
MERCURY CVAA (CLP) ILMO1  Analyst: J. WARE  Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SA	Instrument: CVAA MPLES (CLP) ILMO1	Test: <b>M</b> 920.2.	D
Parameter MERCURY	Result BDL	Det. Limit 0.00020	Units mg/L
FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CL Analyst: B. HAHN Analysis Date: 07-AUG-91	P) ILMO1	Test: P930.4.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 50 50	Det. Limit	Units mL mL
BARIUM ICP (CLP) ILM01 Analyst: J. CARSON Analysis Date: 08-AUG-91	Instrument: ICP	Test: M904.3.	0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	LES (CLP) 1LM01 Result	Det. Limit	Units
BARIUM	0.038	0.010	
CADMIUM ICP (CLP) ILM01  Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M908.3.	0
ADMIUM Parameter	Result BDL	Det. Limit 0.0050	Units mg/L
CHROMIUM ICP (CLP) ILMO1  Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP	Test: M910.3.	
Parameter CHROMIUM	BDL Result	Det. Limit 0.010	Units mg/L
NICKEL ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M922.3.	0
Parameter NICKEL	Result 0.036	Det. Limit 0.010	Units mg/L
SILVER ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M930.3.	0
Parameter SILVER	Result BDL	Det. Limit 0.010	Units mg/L
ALUMINUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP		Test: M901.3.	0
Parameter ALUMINUM	Result 0.35	Det. Limit 0.050	Units mg/L

EMS HERITAGE LABORATORIES, INC. Lab Sample ID: A234847 ANTIMONY ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Instrument: ICP Test: M902.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 Parameter Result Det. Limit Units ANTIMONY **BDL** 0.030 mq/L BERYLLIUM ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Instrument: ICP Test: M905.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 Result Det. Limit Parameter Units BERYLLIUM **BDL** 0.0050 mq/L COBALT ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Instrument: ICP Test: M911.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILMO1 Units Parameter Result Det. Limit COBALT **BDL** 0.010 mg/L COPPER ICP (CLP) ILMO1 Analysis Date: 08-AUG-91 Instrument: ICP Analyst: J. CARSON Test: M912.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILMO1 Result Units Parameter Det. Limit COPPER 0.026 0.020 mq/L prep blank was 0.036 mg/l VANADIUM ICP (CLP) ILM01 Analyst: J. CARSON Analysis Date: 08-AUG-91 Instrument: ICP Test: M938.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILMO1 Result Det. Limit Units Parameter VANADIUM BDL 0.010 mq/L ZINC ICP (CLP) ILM01 Analysis Date: 08-AUG:91 ...Instrument: ICP Analyst: J. CARSON Test: M939.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILMO1 Parameter Result Det. Limit Units ZINC 0.56 0.020 mq/L CALCIUM ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Instrument: ICP Test: M909.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 Result Det. Limit Units Parameter CALCIUM 100 0.20 mg/L IRON ICP (CLP) ILM01 Analyst: J. CARSON Analysis Date: 08-AUG-91 Instrument: ICP Test: M915.3. 0 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILMO1 Parameter Result Det. Limit Units IRON

MAGNESIUM ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-9 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SA		Test: M918.3.	0
Parameter	Result 66.	Det. Limit	Units
AGNESIUM		0.20	mg/L

0.92

mq/L

0.020

EMS HERITAGE LABORATORIES, INC.	L	_ab Sample I	D: A234847
MANGANESE ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	PLES (CLP) ILMO1	Test: M919.3.	
Parameter MANGANESE	Result 0.47	Det. Limit 0.010	Units mg/L
POTASSIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M926.3.	0
Parameter POTASSIUM	Result 3.1	Det. Limit 0.20	Units mg/L
SODIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M931.3.	0
Parameter SODIUM	Result 87.	Det. Limit 0.20	Units mg/L
LITHIUM ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M117.3.	0
Parameter LITHIUM	Result BDL	Det. Limit 0.010	Units mg/L
MOLYBDENUM ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME		Test: M121.3.	0
<u>DLYBDENUM</u>	Result'	Det. Limit 0.010	Units mg/L
STRONTIUM ICP SW846-6010	Instrument: ICP	Test: M132.3.	0
Parameter STRONTIUM	0.39	Det. Limit 0.010	Units mg/L
TIN ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME		Test: M135.3.	0
Parameter TIN	Result BDL	Det. Limit 0.050	Units mg/L
TITANIUM ICP SW846-6010 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M136.3.	0
Parameter TITANIUM	Result BDL	Det. Limit 0.010	Units mg/L
PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION S Analyst: R. MCKAIN Analysis Date: 29-JUL-91	W846-3510	Test: P230.1.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 1050 5	Det. Limit	Units mL mL
	<del></del>	·	

Lab Sample ID: A234847

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTR		Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	0.0001	mg/L
PCB AROCHLOR 1221	BDL	0.0005	mg/L
PCB AROCHLOR 1232	BDL	0.0001	mg/L
PCB AROCHLOR 1242	BDL	0.0001	mg/L
PCB AROCHLOR 1248	BDL	0.0001	mg/L
PCB AROCHLOR 1254	BDL	0.0001	mg/L
PCB AROCHLOR 1260	BDL	0.0001	mg/L
PCB AROCHLOR 1262	BDL	0.0001	mg/L

Analyst: R. SHAMP Analysis Date: 02-AUG-91 Parameter	Instrument: GC/MS VOA  Result	Test: 0530.1.	Units
ACETONE	BDL	20	ug/L
ACROLEIN	BDL	50	
ACRYLONITRILE	BDL	70	ug/L
BENZENE	BDL	5	ug/L
BROMODICHLOROMETHANE	BDL	5	ug/L
BROMOFORM	BDL	5	ug/L
BROMOMETHANE	BDL	10	ug/L
CARBON DISULFIDE	BDL	5	
CARBON TETRACHLORIDE	BDL	5	ug/L
CHLOROBENZENE	BD.	5	ug/L
CHLOROETHANE	BDL	10	ug/L
CHEOROFORM	BDL	5	
ILOROMETHANE	BDL	10	ug/L
IBROMOCHLOROMETHANE	BDL	5	
CIS-1,3-DICHLOROPROPENE	BDL	5.	ug/L
DICHLORODIFLUOROMETHANE	BDL History School	5	J 57
1,1-DICHLOROETHANE	BDL	5	ug/L
1,2-DICHLOROETHANE	BDL	5	ug/L
1,1-DICHLOROETHENE	BDL	5	ug/L
1,2-DICHLOROPROPANE	BDL	5	ug/L
ETHYLBENZENE	BDL	. 5.	ug/L
FLUOROTRICHLOROMETHANE	BDL	5	ug/L
2-HEXANONE	BDL	10	ug/L
METHYLENE CHLORIDE	BDL	.5	
METHYL ETHYL KETONE	BDL	10	ug/L
4-METHYL-2-PENTANONE	BDL	10	
STYRENE	BDL	5	ug/L
1,1,2,2-TETRACHLOROETHANE TETRACHLOROETHENE	BDL BDL	5	ug/L
TETRACHLOROETHENE	BDL	5 25	ug/L
TOLUENE	BDL	5	
1,2-DICHLOROETHENE (TOTAL)	BDL	5	ug/L ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5	ug/L ug/L
1,1,1=TRICHLOROETHANE	BDL	The second of the second	alaman Stagrama
1,1,2-TRICHLOROETHANE	BDL	5	ug/L
TRICHLOROETHENE	BDE	5	ug/L
VINYL ACETATE	BDL	10	ug/L
"INYL CHLORIDE	BDL	10	ug/L
YLENE (TOTAL)	BDL	5	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
DIETHYLETHER	BDL	5	ug/L
1,1,2=TRICHLORO=1,2,2-TRIFLUOROETHANE	BDL	5	uq/L

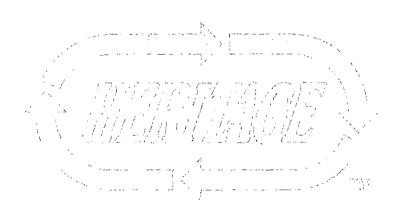
Page 5

Lab Sample ID: A234847

Parameter	Result	Det. Limit	Units
ETHYL ACETATE	BDL	5	ug/L
THYL-T-BUTYL ETHER	BDL	5	ug/L
SURROGATE RECOVERY	AA 1900 A	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8 BROMOFEUOROBENZENE	101 		% Rec
PACKED COLUMN METHOD 8240 HAS BEEN REPLACED BY			
CAPILLARY COLUMN METHOD 8260 ON THIS INSTRUMENT			

Sample Comments

BDL Below Detection Limit



Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234848
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	25-JUL-91 12:30

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - WATER

Parameter

ITIAL WEIGHT OR VOLUME

| rinal volume

S717

	30-JUL-91		
Parameter INITIAL WEIGHT OR VOLUME	Result 50	Det. Limit	Units
FINAL WEIGHT OR VOLUME	50		mL mL
TIME RETURN ON TOLONIE	1		1
ARSENIC GFAA (CLP) ILM01			
Prep: GFAA ACID DIGESTION OF AQUEOUS S	: 30-JUL-91 Instrument: GFAA	Test: M903.2.	0
************************************	Result /	Data Hillian	Units
ARSENIC	BDL	Det. Limit 0.0050	
The state of the s		0.0000	1 11197 E
LEAD GFAA (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: Prep: GFAA ACID DIGESTION OF AQUEOUS S.			
Analyst: W. WATNESS Analysis Date:	: 01-AUG-91 Instrument: GFAA	Test: M916.2.	0
Prep: GFAA ACID DIGESTION OF AQUEOUS S	AMPLES (CLP) ILMUI		Τ
Parameter	Result BDL	Det. Limit	Units
LEAD	BDL	0.003	I IIIg/ L
SELENIUM GFAA (CLP) ILMO1			
Analyst: K. KEHOE Analysis Date:	: 05-AUG-91 Instrument: GFAA	Test: M928.2.	0
Prep: GFAA ACID DIGESTION OF AQUEOUS S	AMPLES (CLP) ILMO1		
Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L
THALLIUM GFAA (CLP) ILMO1			
Analyst: P. SIMS Analysis Date:	: 30-JUL-91 Instrument: GFAA	Test: M934.2.	0
Prep: GFAA ACID DIGESTION OF AQUEOUS S	AMPLES (CLP) ILMO1		
Parameter	Result	Det. Limit	Units
THALLIUM	l BDL	0.0050	mg/L

Result

100

100

Units

mL

Det. Limit

MERCURY CVAA (CLP) ILMO1 Analyst: J. WARE Analysis Date: 30-JUL-91 Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SA		Test: M920.2. C	
Parameter MERCURY	Result BDL	Det. Limit 0.00020	Units mg/L
FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CL Analyst: B. HAHN Analysis Date: 07-AUG-91	P) ILMO1	Test: P930.4. [	)
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 50 50		Units ML ML
BARIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAME	Instrument: ICP PLES (CLP) ILMO1	Test: M904.3. (	)
Parameter BARIUM	Result 0.016	Det. Limit 0.010	Units mg/L
CADMIUM ICP (CLP) ILMO1			
Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILM01	Test: M908.3. (	)
Parameter CADMIUM	Result BDL	Det. Limit 0.0050	Units mg/L
CHROMIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILM01	Test: M910.3. (	)
Parameter   Para	Result BDL	Det. Limit 0.010	Units mg/L
NICKEL ICP (CLP) ILMO1  Analyst: J. CARSON  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: [CP	Test: <b>M922.3.</b> (	)
Parameter NICKEL	Result 0.016	Det. Limit 0.010	Units mg/L
SILVER ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M930.3. (	)
Parameter SILVER	Result BDL	Det. Limit 0.010	Units mg/L
ALUMINUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M901.3. (	)
Parameter ALUMINUM	Result 0.20	Det. Limit 0.050	Units mg/L
ANTIMONY ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M902.3. C	)
Parameter	Result BDL	Det. Limit 0.030	Units mg/L

EMS HERITAGE LABORA	TORIES, INC.	L	ab Sample ID: A2348
BERYLLIUM ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP A	ILMO1  Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) IEMO1	Test: M905.3. 0
REKALTINW	Parameter	Result BDL	Det. Limit Units 0.0050 mg/L
COBALT ICP (CLP) IL Analyst: J. CARSON Prep: FAA OR ICP A	MO1 Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M911.3. D
COBALT	Parameter	Result BDL	Det. Limit Units 0.010 mg/L
COPPER ICP (CLP) IL Analyst: J. CARSON Prep: FAA OR ICP A	MO1 Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP		Test: M912.3. 0
COPPER	Parameter	Result 0.023	Det. Limit Units 0.020 mg/L
prep blank was 0.036	mg/l		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
VANADIUM ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP A	ILMO1 Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP	Instrument: ICP	Test: M938:3. 0
VANADIUM	Parameter	Result	Det. Limit Units 0.010 mg/L
ZINC ICP (CLP) ILMO Analyst: J. CARSON Prep: FAA OR ICP A	1 Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP	Instrument:/ICP PLES (CLP) ILMO1	Test: M939.3. 0
ZINC	Parameter	Result	Det. Limit Units 0.020 mg/L
prep blank was 0.041	mg/l		
CALCYUM TOR (OLD) T	FUC:		
CALCIUM ICP (CLP) I Analyst: J. CARSON Prep: FAA OR ICP A		Instrument: ICP PLES (CLP) ILMO1	Test: M909.3. 0
CALCIUM	Parameter	Result 68.	Det. Limit Units 0.20 mg/L
IRON ICP (CLP) ILMO Analyst: J. CARSON Prep: FAA OR ICP A	1 Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M915.3. 0
IRON	Parameter	Result 2.6	Det. Limit Units 0.020 mg/L
MAGNESIUM ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP A	ILMO1 Analysis Date: 08-AUG-91 CID DIGESTION OF AQUEOUS SAMP	Instrument: ICP PLES (CLP) ILMO1	Test: M918:3. 0
MAGNESIUM	Parameter	Result 50.	Det. Limit Units 0.20 mg/L

EMS HERITAGE LABORATURIES, INC.	L	ap Sambie i	D: AZ34848
MANGANESE ICP (CLP) ILMO1  Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	LES (CLP) ILMO1	Test: M919.3.	
Parameter  MANGANESE	Result 0.41	Det. Limit 0.010	Units mg/L
POTASSIUM ICP (CLP) ILMO1 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M926.3.	D
Parameter POTASSIUM	Result 1.3	Det. Limit 0.20	Units mg/L
SODIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M931.3.	0
Parameter SODIUM	Result	Det. Limit 0.20	Units mg/L
LITHIUM ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M117.3.	0
Parameter LITHIUM	Result 0.028	Det. Limit 0.010	Units mg/L
MOLYBDENUM ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M121.3.	0
<u>DLYBDENUM</u>	Result BDL	Det. Limit 0.010	Units mg/L
STRONTIUM ICP SW846-6010 Analyst: J. CARSON Analysis Date: 08-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: TCP LES (CLP) ILMO1	Test: <b>M</b> 132.3.	0
Parameter STRONTIUM	Result 0.11	Det. Limit 0.010	Units mg/L
TIN ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M135.3.	0
Parameter TIN	Result BDL	Det. Limit 0.050	Units mg/L
TITANIUM ICP SW846-6010  Analyst: J. CARSON Analysis Date: 08-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMP	Instrument: ICP LES (CLP) ILMO1	Test: M136.3.	0
Parameter TITANIUM	Result BDL	Det. Limit 0.010	Units mg/L
PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION ST Analyst: R. MCKAIN Analysis Date: 29-JUL-91	W846-3510	Test: P230.1.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 1050 5	Det. Limit	Units ML ML

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRA	Instrument: GC/ECD CTION SW846-3510	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	0.0001	mg/L
PCB AROCHLOR 1221	BDL	0.0005	mg/L
PCB AROCHLOR 1232	BDL	0.0001	mg/L
PCB AROCHLOR 1242	BDL	0.0001	mg/L
PCB AROCHLOR 1248	BDL	0.0001	mg/L
PCB_AROCHLOR_1254	BDL	0.0001	mq/L
PCB AROCHLOR 1260	BDL	0.0001	mg/L
PCB AROCHLOR 1262	BDL	0.0001	mg/L

IDEM VOLATILE ORGANICS TARGET COMPOUND LIST SW84	6-8240		
Analyst: R. SHAMP Analysis Date: 02-AUG-91		Test: 0530.1.	0
Parameter	Result	Det. Limit	Units
ACETONE	BDL	20	ug/L
ACROLEIN	BDE :	50	ug/L
ACRYLONITRILE	BDL	70	ug/L
BENZENE	BDL		ug/L
BROMODICHLOROMETHANE	BDL	5	ug/L
BROMOFORM	BDL	5	ug/L
BROMOMETHANE	BDL	10	ug/L
CARBON DISULFIDE	BDL	5	ug/L
CARBON TETRACHLORIDE	BDL	5	ug/L
CHLOROBENZENE	BDE	:	ug/L
CHLOROETHANE	BDL	10	ug/L
CHLOROFORM	BDL		ug/L
ILOROMETHANE	BDL	10	ug/L
IBROMOCHEOROMETHANE	BDL////		ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5	ug/L
DICHLORODIFLUOROMETHANE	BDL	5	ug/L
1,1-DICHLOROETHANE	BDL	5	ug/L
1,2-DICHLOROETHANE	BDE	: <b>.</b>	ug/L
1,1-DICHLOROETHENE	BDL	ς	ug/L
1,2-DICHLOROPROPANE	BDL	5 5	ug/L
ETHYLBENZENE	BDL	5	ug/L
FLUOROTRICHLOROMETHANE	BDL	5	ug/L
2-HEXANONE	BDL	10	ug/L
METHYLENE CHLORIDE	BDL	5	ug/L
METHYL ETHYL KETONE	BDL	10	ug/L
4-METHYL-2-PENTANONE	BDL	$1\check{0}$	ug/L
STYRENE	BDL	5	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5	ug/L
TETRACHLOROETHENE	BDL	5	ug/L
TETRAHYDROFURAN	BDL		ug/L
TOLUENE	BDL	5	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDE	5	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5	ug/L
1,1,1-TRICHLOROETHANE	BDL	5	ug/L
1,1,2-TRICHLOROETHANE	BDL	5	ug/L
TRICHLOROETHENE	BDL		ug/L
VINYL ACETATE	BDL	10	ug/L
MINYL CHLORIDE	BDL	10	ug/L
LENE (TOTAL)	BDL	5	ug/L
z-CHLOROETHYLV:INYLETHER	BDE A LI HUSELTA HA	10	ug/L
DIETHYLETHER	BDL	5	ug/L
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	BDL	5	ug/L
<u> </u>			

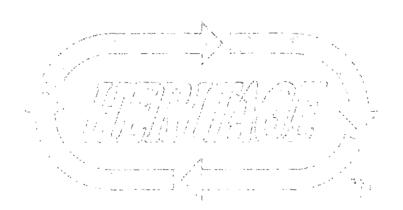
Page 5

Lab Sample ID: A234848

Parameter ETHYL ACETATE	Result BDL	Det. Limit 5	
METHYL-T-BUTYL ETHER    SURROGATE RECOVERY			3,
TOLUENE-D8 BROMOFLUOROBENZENE	97		% Rec % Rec
PACKED COLUMN METHOD 8240 HAS BEEN REPLACED BY CAPILLARY COLUMN METHOD 8260 ON THIS INSTRUMENT			

Sample Comments

BDL Below Detection Limit



Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234849
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 16:00

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

S722

		Test: G401.7.	0
Parameter	Result	Det. Limit	Units Percent
		Test: P930.7.	0
	Result	Det. Limit	Units Grams mL
STION OF S/S/S SAMPLES (CLP) ILMO G Analysis Date: 17-AUG-91	1	Test: P930.7.	1
	Result 1 100	Det. Limit	Units Grams mL
Analysis Date: 20-AUG-9	Instrument: GFAA P) ILMO1	Test: M903.2.	0.
Parameter	Result 4.0	Det. Limit	Units mg/kg
	Parameter  STION OF S/S/S SAMPLES (CLP) ILMO G Analysis Date: 30-JUL-91 Parameter OR VOLUME  STION OF S/S/S SAMPLES (CLP) ILMO G Analysis Date: 17-AUG-91 Parameter OR VOLUME  CLP) ILMO1 Analysis Date: 20-AUG-91 ID DIGESTION OF S/S/S SAMPLES (CL	Parameter  Parameter  Result  68  STION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 30-JUL-91  Parameter  Result  OR VOLUME  VOLUME  STION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 17-AUG-91  Result  1  Parameter  OR VOLUME  1  Parameter  OR VOLUME  1  Parameter  OR VOLUME  1  Analysis Date: 20-AUG-91 Instrument: GFAA  ID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1	Analysis Date: 30-JUL-91  Parameter  Result  Det. Limit  1  STION OF S/S/S SAMPLES (CLP) ILMO1 G Analysis Date: 30-JUL-91  Result  Det. Limit  1  Det. Limit  1  STION OF S/S/S SAMPLES (CLP) ILMO1 G Analysis Date: 30-JUL-91  Result  Det. Limit  De

SELENIUM GFAA (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: 14-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP		Test: M928.2.	0
Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.50	mg/kg

EMS HERITAGE LABORATORIES, INC.		Lab Sample I	D: A234849
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES	CCI DA TI MOT	Test: M934.2.	0
Parameter IHALLIUM	Result BDL	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES Analyst: K. HACK Analysis Date: 07-AU		Test: P931.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1 Analyst: J. WARE Analysis Date: 08-AU Prep: MERCURY CVAA ACID DIGESTION OF S/S/S	G-91 Instrument: CVAA SAMPLES (CLP) ILMO1	Test: M920.2.	0
Parameter MERCURY	Result 0.063	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES ( Analyst: S. STRUEWING Analysis Date: 30-JU		Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES ( Analyst: S. STRUEWING Analysis Date: 13-AU	CLP) ILMO1 G-91	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME NAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES ( Analyst: S. STRUEWING Analysis Date: 02-AU	CLP) ILMO1	Test: P929.7.	3
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES ( Analyst: S. STRUEWING Analysis Date: 02-AU		Test: P929.7.	1
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
BARIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AU Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M904.3.	0
Parameter BARIUM	Result 66.	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	ug-91 Instrument: ICP MPLES (CLP) ILMOI	Test: M908,3,	0
Parameter CADMIUM	Result 1.1	Det. Limit 0.50	Units mg/kg

Lab Sample ID: A234849 EMS HERITAGE LABORATORIES, INC. CHROMIUM ICP (GLP) ILMO1 Analysis Date: 07-AUG-91 Instrument: ICP Test: M910.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Parameter Result Det. Limit Units 12. 1.0 mg/kg I CHROMIUM LEAD ICP (CLP) ILMO1
Analyst: M. JAO Analysis Date: 14-AUG-91 Instrument: ICP Test: M916.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Det. Limit Units Result Parameter 92. 5.0 mg/kg LEAD DILUTION 1:100 NICKEL ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: 07-AUG-91 Instrument: ICP Test: M922.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Result Det. Limit Units Parameter 1.0 mg/kg NICKEL 10. SILVER ICP (CLP) ILMO1 Analysis Date: 21-AUG-91 Instrument: ICP Analyst: J. CARSON Test: M930.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Det. Limit Units Parameter 1.0 mg/kg SILVER DILUTION 1:100 ALUMINUM ICP (CLP) ILM01 - ... Analysis Date: 05-AUG-91 Instrument: ICP Test: M901.3. 0 nalyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Det. Limit Units Result Parameter 4500 5.0 mg/kg ALUMINUM ANTIMONY ICP (CLP) ILM01 Analysis Date: 05-AUG-91 Instrument: ICP Test: M902.3. 0 Analyst: M. JAO

71111 2114111			
ANTIMONY	∫ BDL ✓	3.0	mg/kg
Parameter	Result	Det. Limit	Units
ANTIMONY ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S	D5-AUG-91 Instrument: ICP 5 SAMPLES (CLP) IEMO1	Test: M902.3.	1
ANTIMONY	BDL	3.0	mg/kg

Result

Det. Limit

Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1

Parameter

BERYLLIUM ICP (CLP) ILMO1 Analysis M. JAO Analysis Date: 07-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: IGP S (CLP) ILMO1	Test: M905.3.	O.
Parameter	Result	Det. Limit	Units
BERYLLIUM	1.6	0.50	mg/kg

Units

EMS HERITAGE LABORATORIES, I	NC.	L	ab Sample I	D: A234849_
COBALT ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 05-AUG-91 Inst	rument: ICP LP) ILMOI	Test: M911.3.	0
Parameter LOBALT	4.6	Result	Det. Limit 1.0	Units mg/kg
COPPER ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 05-AUG-91 Inst TION OF S/S/S SAMPLES (C	rument: ICP LP) ILMO1	Test: M912.3.	0
COPPER COPPER	16.	Result	Det. Limit 2.0	Units mg/kg
prep blank was 0.022 mg/l				
VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 05-AUG-91 Inst TION OF S/S/S SAMPLES (C		Test: M938.3.	0
Parameter VANADIUM	13.	Result	Det. Limit	Units mg/kg
ZINC ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 07-AUG-91 Inst TION OF S/S/S SAMPLES (C	rument: ICP LP) ILMO1	Test: M939.3.	0
ZINC	120	Result	Det. Limit 2.0	Units mg/kg
CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 05-AUG-91   Inst TION OF S/S/S SAMPLES (C	rument: ICP LP) ILMO1	Test: M909.3.	0
CALCIUM Parameter		Result 00	Det. Limit 20	Units mg/kg
DILUTION 1:100				
CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 14-AUG-91 Inst TION OF S/S/S SAMPLES (C	rument: ICP LP) ILMO1	Test: M909.3.	1
CALCIUM  DILUTION 1:100	210	Result 00	Det. Limit 20	Units mg/kg
IRON ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 07-AUG-91 Inst TION OF S/S/S SAMPLES (C		Test: M915.3.	0
I RON	120	Result	Det. Limit 2.0	Units mg/kg
MAGNESIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGES	Analysis Date: 05-AUG-91 Inst TION OF S/S/S SAMPLES (C		Test: M918.3.	O
Parameter MAGNESIUM	210	Result O	Det. Limit 20.	Units mg/kg

Lab Sample ID: A234849 EMS HERITAGE LABORATORIES, INC. MANGANESE ICP (CLP) ILMO1 Analysis Date: 05-AUG-91 Instrument: ICP Test: M919.3. 0 Analyst: M. JAO Pred: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Units Parameter Result Det. Limit 490 1.0 mg/kg MANGANESE POTASSIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 05-AUG-91 Instrument: ICP Test: M926.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Det. Limit Units Parameter Result 440 mg/kg POTASSIUM 20. SODIUM ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: 05-AUG-91 Instrument: ICP Test: M931.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Units Parameter Result Det. Limit 100 ma/ka SODIUM 20. LITHIUM ICP SW846-6010 Analysis Date: 05-AUG-91 Instrument: ICP Test: M117.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMOI Det. Limit Units Result Parameter 3.3 1.0 mg/kg LITHIUM MOLYBDENUM ICP SW846-6010 Analysis Date: 05-AUG-91 Instrument: ICP Test: M121.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 J. T. W. 1976. , (1) Units Parameter Result Det. Limit ·BDI: 1.0 ma/ka **DLYBDENUM** STRONTIUM ICP SW846-6010 Analysis Date: 05-AUG-91 Instrument: ICP Test: M132.3. 0 Analyst: M. JAO Pred: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 -Result Det. Limit Units Parameter 25. STRONTIUM 1.0 mg/kg TIN ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M135.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Result Det. Limit Units Parameter TIN BDL 5.0 mg/kg TITANIUM ICP SW846-6010

Result •	Det. Limit 1.0	Units mg/kg
	i	
trument: ICP CLP) ILMO1	Test: M136.3.	1
Result	Det. Limit	Units mg/kg
(	SEP) ILMO1	CLP) ILMO1  Result Det. Limit

EMS HERITAGE LABORATORIES, INC.	_	Lab Sample I	D: A234849
MANGANESE ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M919.3.	0
MANGANESE Parameter	Result 490	Det. Limit	Units mg/kg
POTASSIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AU Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M926.3.	0
Parameter POTASSIUM	Result 440	Det. Limit 20.	Units mg/kg
SODIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AU  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M931.3.	0
Parameter SODIUM	Result 100	Det. Limit	Units mg/kg
LITHIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: D5-AU Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M117.3.	- 000 market
Parameter LITHIUM	Result 3.3	Det. Limit	Units mg/kg
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 05-AU Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M121.3.	0
DLYBDENUM Parameter	BDL	Det. Limit	Units mg/kg
STRONTIUM ICP SW846-6010	G-91 [instrument: ICP	Test: M132.3.	0
Parameter STRONTIUM	Result 25.	Det. Limit	Units mg/kg
TIN ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA		Test: M135.3:	0
Parameter TIN	Result BDL	Det. Limit 5.0	Units mg/kg
TITANIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 07-AU Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M136.3.	0
Parameter TITANIUM	Result 53.	Det. Limit	Units mg/kg
TITANIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 07-AU Prep: FAA OR ICP ACID DIGESTION OF S/S/S SA	G-91 Instrument: ICP MPLES (CLP) ILMO1	Test: M136.3.	1
Parameter TITANIUM	Result 54	Det. Limit	Units mg/kg

Lab Sample ID: A234849

PCB SONICATION EXTRACTION SW846-3550 Analysis Date: 29-00E-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
√ITIAL WEIGHT OR VOLUME	30.17		Grams
FINAL VOLUME	25		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SONICATION EXTRACTION SW846-3550	Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.08	mg/kg
PCB AROCHLOR 1221	BDL	4	mg/kg
PCB AROCHLOR 1232	BDL	.08	mg/kg
PCB AROCHLOR 1242	BDE	.08	mg/kg
PCB AROCHLOR 1248	BDL	.08	mg/kg
PCB AROCHLOR 1254	BDL	.16	mg/kg
PCB AROCHLOR 1260	0.26	.16	mg/kg
PCB AROCHLOR 1262	BDL	.16	mg/kg

Sample Comments

BDL Below Detection Limit



Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234850
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 16:25

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

**S723** 

160.3	Analysis Date: 30-JUL-91		Test: G401.7.	0
Parameter		Result 68	Det. Limit	Units Percent
ION OF S/S/S	SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91		Test: P930.7.	0
Parameter\ VOLUME \ )LUME	mbdadd Likhilid	Resul't	Det. Limit	Units Grams mL
			Test: P930.7.	1
Parameter VOLUME )LUME		Result 1 100	Det. Limit	Units Grams mL
	Analysis Date: 20-AUG-91 F S/S/S SAMPLES (CLP		Test: M903.2.	0
		Result	Det. Limit	Units
	Parameter  ION OF S/S/S  Parameter  VOLUME  ION OF S/S/S  Parameter  VOLUME  OLUME  OLUME  Parameter  VOLUME  OLUME  OLUME	Parameter  ION OF S/S/S SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91  Parameter  VOLUME  ION OF S/S/S SAMPLES (CLP) ILMO1 Analysis Date: 17-AUG-91  Parameter  VOLUME  OLUME  Parameter  VOLUME  OLUME  Analysis Date: 20-AUG-91	Parameter Result  [ON OF S/S/S SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91  Parameter Result  VOLUME  Parameter 1  VOLUME  [ON OF S/S/S SAMPLES (CLP) ILMO1 Analysis Date: 17-AUG-91  Parameter Result  1  100  Parameter Result 1  Parameter 1  Parameter 1  Parameter 1  Parameter 1  Parameter 1  Analysis Date: 20-AUG-91 Instrument: GFAA	Test: G401.7.   Parameter   Result   Det. Limit   1

SELENIUM GFAA (CLP) ILMO1			
Analyst: W. WATNESS Analysis Date: 14-AUG-91	Instrument: GFAA	Test: M928.2.	0
Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	) TEMOT	· · · · · · · · · · · · · · · · · · ·	
			l •
Parameter	Result	Det. Limit	Units
Parameter SELENIUM	Result BDL	Det. Limit	Units mg/kg
		Det. Limit	77

EMS HERITAGE LABORATORIES, INC.	Į.	ab Sample I	D: A234850
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M934.2.	0
Parameter IHALLIUM	Result BDL	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CL Analysi: K. HACK Analysis Date: 07-AUG-91	P) ILMO1	Test: P931.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1  Analyst: J. WARE Analysis Date: 08-AUG-91  Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAMP	Instrument: CVAA LES (CLP) ILMO1	Test: M920.2.	0
Parameter MERCURY	Result 0.071	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analysis Date: 30-JUL-91	ILMO1	Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analysis Date: 13-AUG-91	ILM01	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME [NAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analysts S. STRUEWING Analysis Date: 02-AUG-91		Test: P929.7.	3
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1- 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91	ILMO1	Test: P929.7.	1
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams ML
BARIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M904.3.	D
Parameter BARIUM	Result 220	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M908.3.	0
Parameter CADMIUM	Result 1.6	Det. Limit 0.50	Units mg/kg
DILUTION 1:100			

Lab Sample ID: A234850

EMS HERITAGE LABORATORIES, INC.

		•	
CHROMIUM ICP (CLP) ILMO1  Analysis Mate: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M910.3.	0
Parameter	Result	Det. Limit	Units
CHROMIUM	16.	_ 1.0	mg/kg
DILUTION 1:100			

LEAD ICP (CLP) ILM01  Analyst: M. JAO  Analysis Date: 14-AUG-91 Instrument: ICP  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01					
Parameter	Result	Det. Limit	Units		
LEAD	81.	5.0	mg/kg		
DILUTION 1:100					

NICKEL ICP (CLP) ILM01  Analysis M. JAO  Analysis Date: 07-AUG-91 Instrument: ICP  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01					
Parameter	Result	Det. Limit	Units		
NICKEL	11.	1.0	mg/kg		
DILUTION 1:100					

SILVER ICP (CLP) Analyst: J. CARSON Prep: FAA OR ICP		Analysis Date: 21-AUG-91 ION OF S/S/S SAMPLI			Test: <b>M93</b> 0.3.	0
	Parameter"	101 / 2/11/15	Result	, ,	Det. Limit	Units
LVER	y* - ^* <u>\</u>	11/9/1/9/1	BDL		1.0	mg/kg
LUTION 1:100		1001-144117	有机图结			

ALUMINUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M901.3.	0
Parameter ALUMINUM	Result 5400	Det. Limit 5.0	Units mg/kg

ANTIMONY ICP (CLP) ILM01			
Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	14-AUG-91 Instrument: ICP /S SAMPLES (CLP) ILMO1	Test: M902.3.	0
Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	3.0	mg/kg
DILUTION 1:100			

ANTIMONY ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: 14-AUG-91 Instrument: ICP Test: M902.3, 1 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01					
Parameter	Result	Det. Limit	Units		
ANTIMONY	BDL	3.0	mg/kg		
DILUTION 1:100					

BERYLLIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M905.3.	0
Parameter	Result	Det. Limit	Units
REKATTINW	1.7	0.5 <b>0</b>	mg/kg
DILUTION 1:100		_	

COBALT ICP (CLP) II Analyst: M. JAO Prep: FAA OR ICP /	Analysis Date: 05-AUG-91 ACID DIGESTION OF S/S/S SAMPLES		Test: M911.3.	0
COBALT	Parameter	Result 15.	Det. Limit	Units mg/kg

Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M912.3.	0
Parameter COPPER	Result	Det. Limit	Units ma/ka
prep blank was 0.022 mg/l	10.		mg/ kg

VANADIUM ICP (CL Analyst: M. JAO	Analysis D	ate: 05-AUG-91   Ir		Test: M938.3.	0
Prep: FAA OR IC	P ACID DIGESTION OF S	/S/S SAMPLES	(CLP) ILMO1		
	Parameter	V	Result	Det. Limit	Units
<u>VANADIUM</u>		2:	2.	1.0	mg/kg
!INC IGP (CLP) I	- 17:11:	Mr II Mand	組 るわけ マントー		

1	nalyst: M. JAO   Prep: FAA OR ICP			Instrument: ICP S (CLP) ILM01	Test	: M939.3.	0	
	ZINC	Parameter		Result.	Det.	Limit 2.0	Units mg/kg	200000
	DILUTION 1:100	The state of the s	and the same of th	THE THE PARTY OF T				

CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M909.3.	0
Parameter	Result 17000	Det. Limit	Units ma/ka
DILUTION 1:100	17000		ilig/ kg

CALCIUM ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: '	4-AUG-91 Instrument: ICP	T+- W000 7	•
Prep: FAA OR ICP ACID DIGESTION OF S/S/S	SAMPLES (CLP) ILMO1	Test: M909.3.	-1
Parameter	Result	Det. Limit	Units
Parameter CALCIUM	Result 16000	Det. Limit	Units mg/kg

IRON ICP (CLP) ILM				
Prep: FAA OR ICP	MO1 Analysis Date: 07-AUG-91 ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M915.3.	0
ÉDON	Parameter	Result	Det. Limit	Units
IRON DILUTION 1:100		27000	2.0	mg/kg
DILUTION 1:100				
MAGNESIUM ICP (CLF Analyst: M. JAO Prep: FAA OR ICP	P) ILMO1 Analysis Date: 05-AUG-91 ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M918.3.	0
MAGNESIUM	Parameter	Result 2600	Det. Limit	Units mg/kg
MANCANESE TOD (CL	D) TEMO1			
MANGANESE ICP (CLI Analyst: M. JAO Prep: FAA OR ICP	Analysis Date: 05-AUG-91 ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M919.3.	0
	Parameter	Result	Det. Limit	Units
1ANGANESE		2000	1.0	mg/kg
POTASSIUM ICP (CLF Analyst: M. JAO Prep: FAA OR ICP	P) ILMO1 Analysis Date: 05-AUG-91 ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M926.3.	0
POTASSIUM	Parameter	Result 450	Det. Limit 20.	Units mg/kg
SODIUM ICP (CLP) Analyst: M. JAO Prep: FAA OR ICP		ES (CLP) ILMO1	Test: M931.3.	0
SODIUM	Parameter	90.	Det. Limit 20.	Units mg/kg
LITHIUM ICP SW846-				
Analyst: M. JAO Prep: FAA OR ICP	Analysis Date: 05-AUG-91 ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILM01		0
Prep: FAA OR ICP				Units
Prep: FAA OR ICP _ITHIUM _MOLYBDENUM ICP SW8	ACID DIGESTION OF S/S/S SAMPL Parameter  B46-6010	ES (CLP) ILM01  Result 3.4	Det. Limit	Units mg/kg
Prep: FAA OR ICP  _ITHIUM  MOLYBDENUM ICP SW8 Analyst: M. JAO	ACID DIGESTION OF S/S/S SAMPL Parameter	Result 3.4  Instrument: ICP	Det. Limit	Units mg/kg
Prep: FAA OR ICP _ITHIUM MOLYBDENUM ICP SW8 Analyst: M. JAO Prep: FAA OR ICP	ACID DIGESTION OF S/S/S SAMPL Parameter  846-6010 Analysis Date: 05-AUG-91	Result 3.4  Instrument: ICP	Det. Limit	Units mg/kg 0 Units
Prep: FAA OR ICP  LITHIUM  MOLYBDENUM ICP SW8 Analyst: M. JAO Prep: FAA OR ICP  MOLYBDENUM  STRONTIUM ICP SW84 Analyst: M. JAO	ACID DIGESTION OF S/S/S SAMPL  Parameter  B46-6010  Analysis Date: 05-AUG-91  ACID DIGESTION OF S/S/S SAMPL  Parameter	Result 3.4  Instrument: ICP ES (CLP) ILMO1  Result  BDL  Instrument: ICP	Det. Limit 1.0 Test: M121.3.	Units mg/kg 0 Units mg/kg
Prep: FAA OR ICP  _ITHIUM  MOLYBDENUM ICP SW8 Analyst: M. JAO Prep: FAA OR ICP  MOLYBDENUM  STRONTIUM ICP SW84 Analyst: M. JAO Prep: FAA OR ICP	ACID DIGESTION OF S/S/S SAMPL  Parameter  846-6010  Analysis Date: 05-AUG-91  ACID DIGESTION OF S/S/S SAMPL  Parameter  46-6010  Analysis Date: 05-AUG-91	Result 3.4  Instrument: ICP ES (CLP) ILMO1  Result  BDL  Instrument: ICP	Det. Limit 1.0  Test: M121.3.  Det. Limit 1.0  Test: M132.3.	Units mg/kg 0 Units mg/kg
Prep: FAA OR ICP LITHIUM  MOLYBDENUM ICP SW8 Analyst: M. JAO Prep: FAA OR ICP  MOLYBDENUM  STRONTIUM ICP SW84 Analyst: M. JAO Prep: FAA OR ICP  STRONTIUM  TIN ICP SW846-6010	ACID DIGESTION OF S/S/S SAMPL  Parameter  846-6010  Analysis Date: 05-AUG-91  ACID DIGESTION OF S/S/S SAMPL  Parameter  46-6010  Analysis Date: 05-AUG-91  ACID DIGESTION OF S/S/S SAMPL  Parameter	Result 3.4  Instrument: ICP ES (CLP) ILM01  Result BDL  Instrument: ICP ES (CLP) ILM01  Result BDL  Instrument: ICP ES (CLP) ILM01  Result 24.	Det. Limit 1.0  Test: M121.3.  Det. Limit 1.0  Test: M132.3.	Units mg/kg  Units mg/kg  Units mg/kg  Units mg/kg

Lab Sample ID: A234850

TITANIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M136.3.	0
Parameter	Result	Det. Limit	Units
LITANIUM	55.	1.0	mg/kg
DILUTION 1:100			

TITANIUM ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M136.3.	1
Parameter	Result	Det. Limit	Units
TITANIUM	60	1.0	mg/kg
DILUTION 1:100		<u> </u>	

PCB SONICATION EXTRACTION SW846-3550			
Analyst: D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	29.34		Grams
FINAL VOLUME	25		mE

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SONICATION EXTRACTION SW846-3550	Instrument: GC/ECD	Test: 0301.2.	D
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.08	mg/kg
PCB AROCHLOR 1221	BDC	.4	mg/kg
B AROCHLOR 1232	BDL	.08	mg/kg
B AROCHLOR 1242	BOLLOSÁLISENSOCIA	.08	mg/kg
PCB AROCHLOR 1248	BDL: //	.08	mg/kg
PCB AROCHLOR 1254	BDE	.16	mq/kq
PCB AROCHLOR 1260	BDL-	.16	mg/kg
PCB AROCHLOR 1262	BDE	.16	mg/kg

Sample Comments

BDL Below Detection Limit

Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234851
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 16:54

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. PAT AUSTIN P.O. BOX 6015 105 SOUTH MERIDIAN INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S S724

SOLIDS	Parameter	The second secon	Result 68	Det. Limit	Units Percent
JOE 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		The state of the s	Straffennum - Milliam - manage Main or Super-	<u>*</u>	1 CI CCII C
GFAA ACID DIG Analyst: S. STRUEW		S SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91	EA 29 FT (A.	Test: P930.7.	0.
NITIAL WEIGHT INAL WEIGHT O			Résult 100	Det. Limit	Units Grams mL
<b>GFAA ACID DIG</b> Analyst: S. STRUEW		S SAMPLES (CLP) ILMO1 Analysis Date: 17-AUG-91	Marian Maria	Test: <b>P930.7</b> .	1
NITIAL WEIGHT INAL WEIGHT O			Result 1 100	Det. Limit	Units Grams mL
ARSENIC GFAA Analyst: M. BAUER Prep: GFAA A		Analysis Date: 20-AUG-91 DF S/S/S SAMPLES (CLP		Test: M903.2.	0
ARSENIC	Parameter		Result 3.0	Det. Limit	Units mg/kg

SELENIUM GFAA (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: 14-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	Instrument: GFAA ') ILMO1	Test: M928.2.	0
Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.50	mg/kg

EMS HERITAGE LABORATORIES, INC.		Lab Sample ID	: A234851
THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Analysis Date: 09-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CL	Instrument: GFAA P) ILMOI	Test: M934.2. 0	
Parameter IHALLIUM	Result BDL	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (C Analyst: K. HACK Analysis Date: 07-AUG-91	LP) ILMO1	Test: P931.7, 0	
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	and the second and th	Units Grams mL
MERCURY CVAA (CLP) ILM01  Analyst: J. WARE Analysis Date: 08-AUG-91  Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAM		Test: M920,2. 0	l
Parameter MERCURY	Result BDL	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 30-JUL-91	) ILMO1	Test: P929.7. 0	
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	and the second s	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 02-AUG-91		Test: P929.7. 1	
Parameter INITIAL WEIGHT OR VOLUME [NAL WEIGHT OR VOLUME]	Result 1		Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 13-AUG-91	) ILMO1	Test: P929.7. 2	
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	alter to the seconds.	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 02-AUG-91		Test: P929.7.3	<b>S</b>
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
BARIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILM01	Test: M904.3. (	)
Parameter BARIUM	Result 57.	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 14-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMOI	Test: M908.3. (	1
Parameter CADMIUM	Result 0.84	Det. Limit	Units mg/kg

Lab Sample ID: A234851 EMS HERITAGE LABORATORIES, INC. CHROMIUM ICP (CLP) ILMO1 Analysis Date: 07-AUG-91 Instrument: ICP Test: M910.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Units Parameter Result Det. Limit 1.0 mq/kq 11. I CHROMIUM LEAD ICP (CLP) ILM01 Analyst: M. JA0 Analysis Date: 14-AUG-91 Instrument: ICP Test: M916.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Units Result Det. Limit Parameter 52. 5.0 mq/kq LEAD DILUTION 1:100 NICKEL ICP (CLP) ILM01 Analysis Date: 07-AUG-91 Instrument: ICP Analyst: M. JAO Test: M922.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Result Det. Limit Units Parameter 9.1  $1.0 \mid mq/kq$ NICKEL SILVER ICP (CLP) ILM01 Analysis Date: 21-AUG-91 Instrument: ICP Test: M930.3. 0 Analyst: J. CARSON Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Det. Limit Units Parameter **BDL** 1.0 mg/kg SILVER DILUTION 1:100 ALUMINUM ICP (CLP) ILM01 Analysis Date: 05-AUG-91 Instrument: ICP Test: M901.3. 0 malyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Det. Limit Units Parameter Result. 4500 5.0 mg/kg ALUMINUM ANTIMONY ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: 05-AUG-91 Instrument: ICP Test: M902.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Result Det. Limit Units Parameter **BDL** ANTIMONY 3.0 mg/kg ANTIMONY ICP (CLP) ILM01

Parameter	Result	Det. Limit Units
NTIMONY	BDL	3.0 mg/kg

Analyst: M. JAO  Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M905.3.	0
Parameter	Result	Det. Limit	Units
BERYLLIUM	1.3	0.50	mg/kg

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234851
COBALT ICP (CLP) ILMO1			
Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M911.3.	U
Parameter   LOBALT	Result	Det. Limit	Units mg/kg
COBALI	1 4.0	1.0	ilig/ kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M912.3.	0
Parameter	Result	Det. Limit	Units
COPPER prep blank was 0.022 mg/l	10.	2.0	mg/kg
prep brank was 0.022 mg/ r			
VANADIUM ICP (CLP) ILM01			
Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M938.3.	0
Parameter VANADIUM	Result 12.	Det. Limit	Units mg/kg
ZINC ICP (CLP) ILMO1			
Analyst: M. JAO Analysis Date: 07-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M939.3.	0
Parameter	Result	Det. Limit	Units
ZINC	86.	2.0	mg/kg
CALCIUM ICP (CLP) ILMO1  Analysis M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M909.3.	0
Parameter	Result	Det. Limit	Units
DILUTION 1:100	27000	20	mg/kg
DILOTION 1.100			
IRON ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILMO1	Test: M915.3.	0
Parameter IRON	Result 10000	Det. Limit 2.0	Units mg/kg
MAGNESIUM ICP (CLP) ILMO1			
Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M918.3.	0
Parameter MAGNESIUM	Result 2900	Det. Limit 20.	Units mg/kg
MANGANESE ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M919.3.	0

ENS HERTINGE LAI	DUKATUKIES, INC.		ran sambie i	D: MZ34031
POTASSIUM ICP (( Analyst: M. JAO Prep: FAA OR I	CLP) ILMO1 Analysis Date: 05-AUG-9 CP ACID DIGESTION OF S/S/S SAMP	1 Instrument: ICP LES (CLP) ILM01	Test: M926.3.	0
<u> POTASSIUM</u>	Parameter	Result 450	Det. Limit 20.	Units mg/kg
SODIUM ICP (CLP Analyst: M. JAO Prep: FAA OR I	Analysis Date: 05-AUG-9 CP ACID DIGESTION OF S/S/S SAMP	LES (CLP) ILMO1	Test: M931.3.	
SODIUM	Parameter	Result 67.	Det. Limit 20.	Units mg/kg
LITHIUM ICP SW84 Analyst: M. JAO Prep: FAA OR I	46-6010 Analysis Date: 05-AUG-9 CP ACID DIGESTION OF S/S/S SAMP	1 Instrument: ICP LES (CLP) IEMO1	Test: M117.3.	0
LITHIUM	Parameter	Result 4.4	Det. Limit	Units mg/kg
MOLYBDENUM ICP : Analyst: M. JAO Prep: FAA OR I	<b>SW846-6010</b> Analysis Date: 05:AUG-9 CP ACID DIGESTION OF S/S/S SAMP	1 Instrument: ICP LES (CLP) ILMO1	Test: M121.3.	0
MOLYBDENUM	Parameter	Result BDL	Det. Limit	units mg/kg
STRONTIUM ICP SV Analyst: M. JAO Prep: FAA OR IO	N846-6010  Analysis Date: 05-AUG-9  CP ACID DIGESTION OF S/S/S SAMP	1 Instrument: ICP LES (CLP) ILMO1	Test: M132.3.	0
TRONTIUM	Parameter	Result	Det. Limit	Units mg/kg
TIN ICP SW846-60 Analyst: M. JAO Prep: FAA OR IO		1 Instrument: ICP LES (CLP) ILMO1	Test: M135.3.	0
TIN	Parameter	-Result 11V	Det. Limit 5.0	Units mg/kg
TITANIUM ICP SW8 Analyst: M. JAO Prep: FAA OR IO	346-6010 Analysis Date: 07-AUG-9 CP ACID DIGESTION OF S/S/S SAMP		Test: M136.3.	O
TITANIUM	Parameter	Result 37.	Det. Limit	Units mg/kg
TITANIUM ICP SW8 Analyst: M. JAO Prep: FAA OR IC	346-6010 Analysis Date: 07-AUG-9 CP ACID DIGESTION OF S/S/S SAMP	1 Instrument: ICP LES (CLP) ILMO1	Test: M136.3.	1
TITANIUM	Parameter	Result 37	Det. Limit	Units mg/kg
PCB SONICATION E	EXTRACTION SW846-3550 Analysis Date: 29-JUL-9	1	Test: P231.1.	0
INITIAL WEIGHT OF FINAL VOLUME	Parameter R VOLUME	Result 30.48 25	Det. Limit	Units Grams mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SONICATION EXTRACTION SW846-3550	Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.08	mg/kg
PCB AROCHLOR 1221	BDL	4	mg/kg
PCB AROCHLOR 1232	BDL	.08	mg/kg
PCB_AROCHLOR_1242	BDL	.08	mg/kg
PCB AROCHLOR 1248	BDL	.08	mg/kg
PCB AROCHLOR 1254	BDL	.16	mg/kg
PCB AROCHLOR 1260	BDL	.16	mg/kg
PCB AROCHLOR 1262	BDL	.16	mg/kg

CALCIUM ICP (CLP) ILMO1  Analysis Date: 14-AUG-91 Instrument: ICP Test: M909.3. 1  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1						
Parameter	Result	Det. Limit	Units			
CALCIUM	26000	20	mg/kg			
DILUTION 1:100						

						Samp	le C	omn	ents	;
BDL	Be1ow	Detection	Limit		grant the same and account of	, may symmetry and on	. 1 -	٠,		^ .
				 	garger as or exp. Am	and the second control of the second	,	->		

Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234852
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	<b>70</b> D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 18:45

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

**S725** 

		Analysis Date: 30-JUL-91		Test: G401.7.	T
SOLIDS	Parameter	A CONTRACTOR OF THE PARTY OF TH	Result 65	Det. Limit	Percent
GFAA ACID DIGEST	ION OF S/S/S	SAMPLES (CLP) ILMO Analysis Date: 30-JUL-91		Test: P930.7.	n
VITIAL WEIGHT OR		20000000 000000000000000000000000000000	Résult	Det. Limit	Units Grams mL
GFAA ACID DIGEST Analyst: S. STRUEWING	ION OF S/S/S	SAMPLES (CLP) ILMO Analysis Date: 17-AUG-91	l yes	Test: P930.7.	1
INITIAL WEIGHT OR FINAL WEIGHT OR V			Result 1 100	Det. Limit	Units Grams mL
ARSENIC GFAA (CL	P) ILMO1	Analysis Date: 20-AUG-91 DF S/S/S SAMPLES (CL		Test: M903.2.	0
	Parameter		Result	Det. Limit	Units

		Test: M928.2.	0
Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	') ILMUI		
Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.50	mg/kg

EMS HERITAGE LABORATORIES, INC.		Lab Sample 1	ID: A234852
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS Analysis Date  Prep: GFAA ACID DIGESTION OF S/S/S SAN	e: 09-AUG-91   Instrument: GFAA MPLES (CLP)   ILMO1	Test: M934.2.	0
Parameter IHALLIUM	Result BDL	Det. Limit	Units mg/kg
DILUTION = 1:2			
MERCURY CVAA ACID DIGESTION OF S/S/S S/			n
Analyst: K. HACK Analysis Date  Parameter	e: 07-AUG-91 Result	Test: P931.7.	Units
Analysis Date	e: 07-AUG-91	Test: P931.7.	1

Parameter MERCURY	Result BDL	Det. Limit <b>0.</b> 050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 30-JUL-91	ILM01	Test: P929.7.	n
Parameter INITIAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL

FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Analyst: S. STRUEWING Analysis Date: 13-AUG-91	Test: P929.7.	2
Parameter Result	Det. Limit	Units
- NITIAL WEIGHT OR VOLUME、 \		Grams
FINAL WEIGHT OR VOLUME		mL

FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 02-Aug-91		Test: P929.7.	3
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1		Grams
FINAL WEIGHT OR VOLUME	100		mL

FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91	ILMO1	Test: P929.7.	1
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1		Grams
FINAL WEIGHT OR VOLUME	100		mL

BARIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M904.3.	0
Parameter	Result	Det. Limit	Units
BARIUM	58.	1.0	mg/kg

CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M908.3.	0
Parameter	Result	Det. Limit	Units
(DM I UM	0.80	0.50	mg/kg
υΙLUTION 1:100			

EMS HERITAGE LABO	DRATORIES, INC.	1	ab Sample ID: A234852
CHROMIUM ICP (CLI Analyst: M. JAO Prep: FAA OR ICI	P) ILMO1 Analysis Date: 07-AUG-91 P ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M910:3. 0
LHROMIUM	Parameter	Result	Det. Limit Units 1.0 mg/kg
LEAD ICP (CLP) II Analyst: M. JAO Prep: FAA OR ICI	_MO1 Analysis Date: 14-AUG-91 P ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M916.3. 0
LEAD DILUTION 1:100	Parameter	Result 42.	Det. Limit Units 5.0 mg/kg
NICKEL ICP (CLP) Analyst: M. JAO Prep: FAA OR ICI	ILMO1 Analysis Date: 07-AUG-91 P ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M922.3. 0
NICKEL	Parameter	Result	Det. Limit Units 1.0 mg/kg
SILVER ICP (CLP) Analyst: J. CARSON Prep: FAA OR IC	ILMO1  Analysis Date: 21-AUG-91 PACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M930.3. 0
SILVER DILUTION 1:100	Parameter	Result	Det. Limit Units 1.0 mg/kg
ALUMINUM ICP (CLI nalyst: M. JAO Prep: FAA OR ICI		Instrument: ICP	Test: M901.3. 0
ALUMINUM	Parameter	Result 7.100	Det. Limit Units 5.0 mg/kg
ANTIMONY ICP (CLI Analyst: M. JAO Prep: FAA OR ICI	P) ILMO1  Analysis Date: 05-AUG-91 P ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M902.3. D
ANTIMONY	Parameter	Result BDL	Det. Limit Units 3.0 mg/kg
ANTIMONY ICP (CLI Analyst: M. JAO Prep: FAA OR ICI	P) ILMO1 Analysis Date: 05-AUG-91 P ACID DIGESTION OF S/S/S SAMPL		Test: M902.3. 1
ANTIMONY	Parameter	Result BDL	Det. Limit Units 3.0 mg/kg
BERYLLIUM ICP (CI Analyst: M. JAO Prep: FAA OR ICI	L <b>P) ILMO1</b> Analysis Date: 07:AUG 91 P ACID DIGESTION OF S/S/S SAMPL		Test: M905.3. 0
BERYLLIUM	Parameter	Result 1.3	Det. Limit Units 0.50 mg/kg

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234852
COBALT ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M911.3.	0
Parameter COBALT	Result 5.6	Det. Limit	Units mg/kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M912.3.	0
Parameter COPPER	Result 9.2	Det. Limit 2.0	Units mg/kg
VANADIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M938.3.	0
Parameter VANADIUM	Result 15.	Det. Limit	Units mg/kg
ZINC ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M939.3.	0
Parameter ZINC	Result 72.	Det. Limit 2.0	Units mg/kg
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M909.3.	0
ALCIUM [LUTION 1:100	7900 Result/	Det. Limit 20	Units mg/kg
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M909.3.	1
Parameter CALCIUM	Result 7700	Det. Limit 20	Units mg/kg
DILUTION 1:100 .			
IRON ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M915.3,	0
Parameter IRON	Result 12000	Det. Limit 2.0	Units mg/kg
MAGNESIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M918.3.	0
Parameter MAGNESIUM	Result 2000	Det. Limit 20.	Units mg/kg

EMS HERITAGE LABORATORIES, INC.		Lab Sample ID: A234852		
MANGANESE ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	05-AUG-91 Instrument: ICP S SAMPLES (CLP) ILM01	Test: M919.3.	)	
MANGANESE	Result 440	Det. Limit	Units mg/kg	
POTASSIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	05-AUG-91 Instrument: ICP S SAMPLES (CLP) ILM01	Test: M926.3.	0	
Parameter POTASSIUM	Result 620	Det. Limit 20.	Units mg/kg	
SODIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	05-AUG-91 Instrument: ICP S SAMPLES (CLP) ILM01	Test: M931.3.	0	
Parameter SODIUM	Result 68.	Det. Limit 20.	Units mg/kg	
LITHIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	05-AUG-91 Instrument: ICP S SAMPLES (CLP) ILM01	Test: M117.3.	0	
Parameter LITHIUM	Result 6.7	Det. Limit	Units mg/kg	
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	05-AUG-91 Instrument: ICP S SAMPLES (CLP) ILM01	Test: M121.3.	0	
)LYBDENUM		Det. Limit	Units mg/kg	
STRONTIUM ICP SW846-6010	05-AUG-91 Instrument: ICP	Test: M132.3.	0	
Parameter STRONTIUM	Result 13.	Det. Limit	Units mg/kg	
TIN ICP SW846-6010  Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	06-AUG-91 Instrument: ICP S SAMPLES (CLP) ILMO1	Test: M135.3.	0	
Parameter TIN	Result BDL	Det. Limit 5.0	Units mg/kg	
TITANIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	07-AUG-91 Instrument: ICP S SAMPLES (CLP) ILMO1	Test: M136.3.	0	
Parameter TITANIUM	Result 62.	Det. Limit	Units mg/kg	
TITANIUM ICP SW846-6010 Analyst: M. JAO Analysis Date: Prep: FAA OR ICP ACID DIGESTION OF S/S/	07-AUG-91 Instrument: ICP S SAMPLES (CLP) ILMO1	Test: M136.3.	1	
Parameter TITANIUM	Result 40	Det. Limit	Units mg/kg	

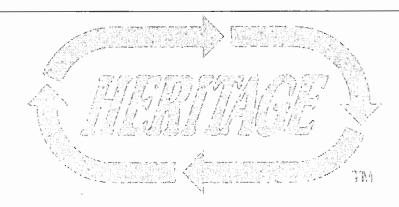
Lab Sample ID: A234852

PCB SONICATION EXTRACTION SW846-3550 Analysis D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
IITIAL WEIGHT OR VOLUME	29.82		Grams
I FINAL VOLUME	25		::m

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SONICATION EXTRACTION SW846-3550	Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.08	mg/kg
PCB AROCHLOR 1221	BDL	4	mg/kg
PCB AROCHLOR 1232	BDL	.08	mg/kg
PCB AROCHLOR 1242	BDL	.08	mg/kg
PCB AROCHLOR 1248	BDL	.08	mg/kg
PCB AROCHLOR 1254	BDL	.16	mq/kq
PCB AROCHLOR 1260	BDL	.16	mg/kg
PCB AROCHLOR 1262	BDL	.16	mg/kg

Sample Comments

BDL Below Detection Limit



Service Location	Received	Lab ID
SMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234853
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	23-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 19:00

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

Analyst: R. RIFE		Analysis Date: 30-JUL-91		Test: G401.7.	0
SOLIDS	Parameter		Result	Det. Limit	Units Percent
		SAMPLES (CLP) ILM01			
Analyst: S. STRUEWING	ì	Analysis Date: 30-JUL-91	White I a star in the same of	Test: P930.7.	0
NITIAL WEIGHT O FINAL WEIGHT OR			Result	Det. Limit	Units Grams ml
ATTOMETIMES TO SECTION AND ADDRESS OF THE PARTY OF THE PA	,		1 ×××××		4
GFAA ACID DIGES Analyst: S. STRUEWING	TION OF S/S/S	SAMPLES (CLP) ILM01 Analysis Date: 17-AUG-91	Tit.	Test: P930.7.	1
Aliacyse. 5. Sikocwina			<u>japi popologopopopo, locopopopopijas galgarganda jubacceno interior ir ispol</u>		<u> </u>
Andryst. 52 SINCEWING	Parameter		Result	Det. Limit	Units
	Parameter		1	Det. Limit	Units Grams
NITIAL WEIGHT O	Parameter R VOLUME		Result 1 100	Det. Limit	
INITIAL WEIGHT OF	Parameter R VOLUME VOLUME		1	Det. Limit	Grams
INITIAL WEIGHT OF TINAL WEIGHT OR ARSENIC GFAA (C	Parameter R VOLUME VOLUME		1 100		Grams   mL
NITIAL WEIGHT O INAL WEIGHT OR ARSENIC GFAA (C Analyst: M. BAUER	Parameter R VOLUME VOLUME LP) ILMO1	Analysis Date: 20-AUG-91 F S/S/S SAMPLES (CLP	1 100 Instrument: GFAA	Det. Limit  Test: M903.2.	Grams   mL
INITIAL WEIGHT OF TINAL WEIGHT OR ARSENIC GFAA (C	Parameter R VOLUME VOLUME LP) ILMO1	Analysis Date: 20-AUG-91	1 100 Instrument: GFAA		Grams   mL

SELENIUM GFAA (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: 14-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M928.2.	0	
Parameter	Result	Det. Limit	Units	
SELENIUM	BDL	0.50	mg/kg	

\DMIUM νΙLUTION 1:100

EMS HERITAGE LABORATORIES, INC.		Lab Sample ID: A234853
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS  Analysis Date: 09-AUG-91  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M934.2. 0
Parameter	Result BDL	Det. Limit Units 2.0 mg/kg
DILUTION = 1:4	552	1 210 1 mg/ kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CL Analyst: K. HACK Analysis Date: 07-AUG-91	P) ILMO1	Test: P931.7. 0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit Units Grams mL
MERCURY CVAA (CLP) ILMO1 Analyst: J. WARE Analysis Date: 08-AUG-91 Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAMP	Instrument: CVAA PLES (CLP) ILM01	Test: M920:2: 0
Parameter MERCURY	Result BDL	Det. Limit Units 0.050 mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 30-JUL-91	ILM01	Test: P929.7. 0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 13-AUG-91		Test: P929.7. 2
VITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Řésult 1	Det. Limit Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91		Test: P929.7. 3
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91	ILMO1	Test: P929.7. 1
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit Units Grams
BARIUM ICP (CLP) ILM01  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP	Test: M904.3. 0
Parameter BARIUM	Result 53.	Det. Limit Units 1.0 mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M908.3: 0
Parameter \DMIUM	Result 1.3	Det. Limit Units 0.50 mg/kg
1.1/1/1/TION 1:100	1 1 0	

	ORATORIES, INC.		Lab Sample ID: A234853
CHROMIUM ICP (CLF Analyst: M. JAO Prep: FAA OR ICF	P) IEMO1 Analysis Date: 07-AUG-91 P ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M910.3. 0
∟ ∪HROMIUM	Parameter	Result 7.8	Det. Limit Units 1.0 mg/kg
LEAD ICP (CLP) IL Analyst: M. JAO Prep: FAA OR ICF	MO1  Analysis Date: 14-AUG-91  ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILM01	Test: <b>M916.3</b> . 0
LEAD DILUTION 1:100	Parameter	Result 31.	Det. Limit Units 5.0 mg/kg
NICKEL ICP (CLP) Analyst: M. JAO Prep: FAA OR ICF	ILMO1  Analysis Date: 07-AUG-91 PACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M922.3; 0
NICKEL	Parameter	Result 10	Det. Limit Units 1.0 mg/kg
SILVER ICP (GLP) Analyst: J. CARSON Prep: FAA OR ICE	ILMO1 Analysis Date: 21-AUG-91 PACID DIGESTION OF S/S/S SAMPL		Test: M930.3. 0
SILVER	Parameter	Result BDL	Det. Limit Units 1.0 mg/kg
DILUTION 1:100			
ALUMINUM ICP (CLE unalyst: M. JAO Prep: FAA OR ICE	Analysis Date: 05-AUG-91	Enstrument: ECP	Test: M901.3, 0
	P ACID DIGESTION OF S/S/S SAMPL	ES (GLP) ILMUI 🦠	
ALUMINUM	Parameter Parameter	Result 5600	Det. Limit Units 5.0 mg/kg
ANTIMONY ICP (CLE	Parameter  P) ILMO1  Analysis Date: 09-AUG-91	Result 5600	5.0 mg/kg
ANTIMONY ICP (CLE	Parameter P) ILMO1	Result 5600	5.0 mg/kg
ANTIMONY ICP (CLE Analyst: M. JAO Prep: FAA OR ICE ANTIMONY  ANTIMONY ICP (CLE Analyst: M. JAO	Parameter  P) ILMO1  Analysis Date: 09-AUG-91  P ACID DIGESTION OF S/S/S SAMPL  Parameter  P) ILMO1	Result 5600  Instrument: ICP ES (CLP) ILM01  Result BDL  Instrument: ICP	5.0 mg/kg  Test: M902.3. 0  Det. Limit Units
ANTIMONY ICP (CLE Analyst: M. JAO Prep: FAA OR ICE ANTIMONY  ANTIMONY ICP (CLE Analyst: M. JAO	Parameter  P) ILMO1  Analysis Date: 09-AUG-91  PACID DIGESTION OF S/S/S SAMPL  Parameter  P) ILMO1  Analysis Date: 09-AUG-91	Result 5600  Instrument: ICP ES (CLP) ILM01  Result BDL  Instrument: ICP	5.0 mg/kg  Test: M902.3. 0  Det. Limit Units 30 mg/kg
ANTIMONY ICP (CLE Analyst: M. JAO Prep: FAA OR ICE ANTIMONY  ANTIMONY ICP (CLE Analyst: M. JAO Prep: FAA OR ICE ANTIMONY  BERYLLIUM ICP (CLE Analyst: M. JAO	Parameter  Analysis Date: 09-AUG-91 PACID DIGESTION OF S/S/S SAMPL Parameter  P) ILMO1 Analysis Date: 09-AUG-91 PACID DIGESTION OF S/S/S SAMPL Parameter  Parameter  P) ILMO1	Result 5600  Instrument: ICP ES (CLP) ILM01  Result BDL  Instrument: ICP ES (CLP) ILM01  Result BDL  Instrument: ICP	5.0 mg/kg  Test: M902.3. 0  Det. Limit Units 30 mg/kg  Test: M902.3. 1  Det. Limit Units

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234853
COBALT ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M911.3.	0
Parameter UBALT	Result 5.6	Det. Limit	Units mg/kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M912.3.	0
Parameter COPPER	Result 8.8	Det. Limit 2.0	Units mg/kg
VANADIUM ICP (CLP) ILMO1  Analysis M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMOI	Test: M938.3.	T
Parameter VANADIUM	Result 14.	Det. Limit	Units mg/kg
<b>ZINC ICP (CLP) ILMO1</b> Analyst: M. JAO Analysis Date: 07-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M939.3.	0
Parameter ZINC	Result 85	Det. Limit 2.0	Units mg/kg
CALCIUM ICP (CLP) ILM01  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M909.3.	0
Parameter ALCIUM	Result.	Det. Limit 20	Units mg/kg
TLUTION 1:100			
CALCIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 14-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M909.3.	1
Parameter CALCIUM	Result 1400	Det. Limit	Units mg/kg
DILUTION 1:100	_		
IRON ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M915.3.	0
Parameter IRON	Result 22000	Det. Limit	Units mg/kg
MAGNESIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M918.3.	0
Parameter MAGNESIUM	Result 960	Det. Limit 20.	Units mg/kg

LITHIUM ICP SW846-6010			
Analyst: M. JAO Analys	is Date: 05-AUG-91 Instrument: ICP	Test: M117.3.	0
Prep: FAA OR ICP ACID DIGESTION O	OF S/S/S SAMPLES (CLP) ILMO1		
Parameter	Result	Det. Limit	Units
LITHIUM	5.9	1.0	mg/kg
	<u> </u>		

SODIUM

42.

nalyst: M. JAO	42.2	Analysis Date: 05-AU			Test: M121.3.	0
Prep: FAA OR I	CP ACID DIGES	TION OF S/S/S SA	MPLES (CLP) II	_M01		
	Parameter		Res	ult	Det. Limit	Units
LYBDENUM			/BDL		1.0	mg/kg
	\$ 32 E	· · · · · · · · · · · · · · · · · · ·		1000 V		

STRONTIUM ICP SW846-6010	A STATE AND	
Analyst: M. JAO Prep: FAA OR ICP ACID DIGE	Analysis Date: 05-AUG-91 Instrument: ICP STION OF S/S/S SAMPLES (CLP) ILMO1	Test: M132.3. 0
Parameter	Result 11A	Det. Limit Units
STRONTIUM	7.4	1.0 mg/kg

TIN ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M135.3.	0
Parameter	Result	Det. Limit 5.0	Units
TIN	BDL		mg/kg

TITANIUM ICP SW846-6010			
	alysis Date: 05-AUG-91 Instrument: ICP	Test: M136.3.	0
Prep: FAA OR ICP ACID DIGESTIC	N OF S/S/S SAMPLES (CEP) ILMOI		
Parameter	Result	Det. Limit	Units
TITANIUM	37	1.0	mg/kg
DILUTION 1:100			1
DILOTION 1.100			I

TITANIUM ICP SW846-6010	: 14-AUG-91 Instrument: ICP /S SAMPLES (CLP) ILMO1	Test: M136.3.	1
Parameter	Result	Det. Limit	Units
TANIUM	35	1.0	mg/kg
νίLUTION 1:100			

20.

mg/kg

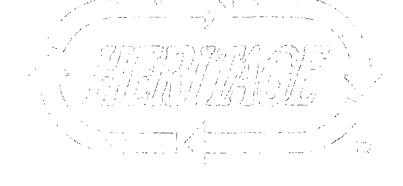
Lab Sample ID: A234853

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
NITIAL WEIGHT OR VOLUME	29.31		Grams
FENAL VOLUME	25		m

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080 Analyst: L. JULIAN Analysis Date: 04-AUG-91 Prep: PCB SONICATION EXTRACTION SW846-3550	Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.08	mg/kg
PCB AROCHLOR 1221	BDL	.4	mg/kg
PCB AROCHLOR 1232	BDL	.08	mg/kg
PCB AROCHLOR 1242	BDL	.08	mg/kg
PCB AROCHLOR 1248	BDL	.08	mg/kg
PCB AROCHLOR 1254	BDL	.16	mg/kg
PCB AROCHLOR 1260	0.56	.16	mg/kg
PCB AROCHLOR 1262	×BDL	.16	mg/kg

BDL Below Detection Limit

Sample Comments



Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234854
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	24-JUL-91 19:45

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

Analyst: R. RIFE	Analysis Date: 30-JUL-91		Test: G401.7.	0
Parameter SOLIDS		Result 89	Det. Limit	Units Percent
GFAA ACID DIGESTION OF S/S Analyst: S. STRUEWING	/S SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91	HA SAIFT NA	Test: P930.7.	0
Parameter VITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME		Résult	Det. Limit	Units Grams mL
GFAA ACID DIGESTION OF S/S Analyst: S. STRUEWING	/S SAMPLES (CLP) ILMO1 Analysis Date: 17-AUG-91		Test: P930.7.	1
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	,	Result 1 100	Det. Limit	Units Grams mL
ARSENIC GFAA (CLP) ILMO1 Analyst: M. BAUER Prep: GFAA ACID DIGESTION	Analysis Date: 20-AUG-91 OF S/S/S SAMPLES (CLP		Test: M903.2,	0
Paramete ARSENIC		Result 14	Det. Limit 2.5	Units mg/kg
SELENIUM GFAA (CLP) ILMO1 Analyst: W. WATNESS Prep: GFAA ACID DIGESTION	Analysis Date: 14-AUG-91 OF S/S/S SAMPLES (CLP		Test: M928.2.	0
Parameter SELENIUM		Result BDL	Det. Limit	Units mg/kg

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234854
THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	Instrument: GFAA P) ILMO1	Test: M934.2.	0
Parameter  IHALLIUM	Result BDL .	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CI Analysis K. HACK Analysis Date: 07-AUG-91	P) ILMO1	Test: P <b>931.7.</b>	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1 Analyst: J. WARE Analysis Date: 08-AUG-91 Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAMM	Instrument: CVAA PLES (CLP) ILMO1	Test: M920.2.	0
Parameter MERCURY	Result 0.34	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 30-JUL-91		Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 13-AUG-91	) ILMO1	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME INAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analysts S. STRUEWING Analysis Date: 02-AUG-91	· · · · · · · · · · · · · · · · · · ·	Test: P929.7.	3
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result -1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91	) ILMO1	Test: P929.7.	1
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
BARIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLI	Instrument: ICP S (CLP) ILMO1	Test: M904.3.	0
Parameter BARIUM	Result 160	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M908.3.	0
Parameter CADMIUM DILUTION 1:100	Result 1.0	Det. Limit 0.50	Units mg/kg
LOTION 1.100			

LIIO HERATINGE EN	BORATORIES, INC.		Lab Sample ID: A234854
CHROMIUM ICP (C Analyst: M. JAO Prep: FAA OR I	Analysis Da	ste: 07-AUG-91   Instrument: ICP /S/S SAMPLES (CLP)   ILM01	Test: M910.3. 0
CHROMIUM	Parameter	Result 13.	Det. Limit Units 1.0 mg/L
LEAD ICP (CLP) Analyst: M. JAO Prep: FAA OR I	Analysis Da	ste: 14-AUG-91   Instrument: ICP /S/S SAMPLES (CLP)   ILMO1	Test: M916.3. 0
LEAD	Parameter	Result 140	Det. Limit Units 5.0 mg/kg
DILUTION 1:100			
NICKEL ICP (CLP Analyst: M. JAO Prep: FAA OR I	Analysis Da	ste: 07-AUG-91   Instrument: ICP /S/S SAMPLES (CLP)   ILM01	Test: M922.3. 0
NICKEL	Parameter 	Result 14.	Det. Limit Units 1.0 mg/L
SILVER ICP (CLP Analyst: J. CARSON Prep: FAA OR I	• Analysis Da	ite: 21-AUG-91   Instrument: ICP /S/S SAMPLES (CLP)   ILM01	Test: M930.3. 0
SILVER	Parameter	Result BDL	Det. Limit Units 1.0 mg/kg
DILUTION 1:100		The second secon	
	<u> </u>		
malyst: M. JAO	LP) ILMO1  Analysis Da  CP ACID DIGESTION OF S	ite: 05-AUG-91 / Instrument: ICP /S/S. SAMPLES (CLP) ILM01	Test: M901,3. 0
malyst: M. JAO	Analysis Da	rte: 05-AUG-91 / Instrument: ICP /S/S SAMPLES (CLP) ILM01 Result	Test: M901.3. 0
nalyst: M. JAO Prep: FAA OR I ALUMINUM  ANTIMONY ICP (C	Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1	ite: 05-AUG-91 / Instrument: ICP /S/S SAMPLES (CLP) ILM01 Result	Test: M901.3. 0  Det. Limit Units
nalyst: M. JAO Prep: FAA OR I ALUMINUM  ANTIMONY ICP (C	Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1	rte: 05-AUG-91   Instrument: ICP /S/S SAMPLES (CLP) ILM01 Result 8000	Test: M901.3. 0  Det. Limit Units 5.0 mg/kg
ANTIMONY ICP (CAnalyst: M. JAO)  ANTIMONY ICP (CAnalyst: M. JAO)  Prep: FAA OR I  ANTIMONY  ANTIMONY  ANTIMONY ICP (CAnalyst: M. JAO)	Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1  Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1  Analysis Da	rite: 05-AUG-91   Instrument: ICP   /S/S SAMPLES (CLP)   ILM01   Result   8000   Result   Res	Test: M901.3. 0  Det. Limit Units 5.0 mg/kg  Test: M902.3. 0  Det. Limit Units
ANTIMONY ICP (CAnalyst: M. JAO)  ANTIMONY ICP (CAnalyst: M. JAO)  Prep: FAA OR I  ANTIMONY  ANTIMONY  ANTIMONY ICP (CAnalyst: M. JAO)	Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1  Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1  Analysis Da	rte: 05-AUG-91   Instrument: ICP   /S/S SAMPLES (CLP)   ILM01   Result   8000    ate: 05-AUG-91   Instrument: ICP   /S/S SAMPLES (CLP)   ILM01   Result   BDL   BDL	Test: M901.3. 0  Det. Limit Units mg/kg  Test: M902.3. D  Det. Limit Units mg/kg
ANTIMONY ICP (CAnalyst: M. JAO Prep: FAA OR I  ANTIMONY ICP (CAnalyst: M. JAO Prep: FAA OR I  ANTIMONY  ANTIMONY ICP (CAnalyst: M. JAO Prep: FAA OR I  ANTIMONY  BERYLLIUM ICP (Analyst: M. JAO	Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1 Analysis Da CP ACID DIGESTION OF S,  Parameter  LP) ILMO1 Analysis Da CP ACID DIGESTION OF S,  Parameter  CLP) ILMO1 Analysis Da Analysis Da	rte: 05-AUG-91   Instrument: ICP   /S/S SAMPLES (CLP)   ILM01   Result   8000    ate: 05-AUG-91   Instrument: ICP   ILM01   Result   BDL   Result   BDL    ate: 05-AUG-91   Instrument: ICP   ILM01   Result   BDL   Result   BDL   Result	Test: M901.3. 0  Det. Limit Units 5.0 mg/kg  Test: M902.3. 0  Det. Limit Units 3.0 mg/kg  Test: M902.3. 1  Det. Limit Units Units Units Units Units Units Units Units

EMS HERITAGE LABORATURIES, INC.	<u>L</u>	<u>ad Sample II</u>	D: MZ34004
COBALT ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1		0
Parameter	Result 8.0	Det. Limit	Units mg/kg
COPPER ICP (CLP) ILMO1  Analysis M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILMO1	Test: M912.3.	0
Parameter COPPER	Result 28.	Det. Limit 2.0	Units mg/kg
VANADIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M938.3.	0
Parameter VANADIUM	Result 19.	Det. Limit 1.0	Units mg/kg
ZINC ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILMO1	Test: M939.3.	0
Parameter ZINC	Result 110	Det. Limit 2.0	Units mg/L
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP	Test: M909.3.	0
ALCIUM Parameter	55,000 Result	Det. Limit 20	Units mg/kg
[LUTION 1:100	MULA X		
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILMO1	Test: M909.3.	1
Parameter CALCIUM	Result 46000	Det. Limit 20	Units mg/kg
DILUTION 1:100			
IRON ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 07-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test; M915.3.	0
Parameter IRON	Result 16000	Det. Limit 2.0	Units mg/L
MAGNESIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 05-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M918.3.	0
Parameter MAGNESIUM	Result 1800	Det. Limit 20.	Units mg/kg

EMS HERITAGE LABORATORIES, INC. Lab Sample ID: A234854

	Lab Sample I	D: A234854
1 Instrument: ICP LES (CLP) ILM01	Test: M919.3.	0
Result	Det. Limit	Units mg/kg
1 Instrument: ICP LES (CLP) ILMO1	Test: M926.3.	0
Result 740	Det. Limit 20.	Units mg/kg
1 Instrument: ICP LES (CLP) ILMO1	Test: M931.3.	0
Result 49.	Det. Limit 20.	Units mg/kg
ri instrument: ICP LES (CLP) ILMO1	Test: M117.3.	0 .
Result 5.6	Det. Limit	Units mg/kg
1 Instrument: FCP LES (CLP) ILMO1	Test: M121.3.	0
Result	Det. Limit	Units mg/kg
Instrument: ICP LES (CLP) ILMO1	Test: M132.3.	0
57.	Det. Limit	Units mg/kg
P1 Instrument: ICP PLES (CLP) ILMO1	Test: M135.3.	0
Result	Det. Limit 5.0	Units mg/kg
P1 Instrument: ICP PLES (CLP) ILMO1	Test: M136.3.	0
Result 61.	Det. Limit	Units mg/L
P1 Instrument: ICP LES (CLP) ILMO1	Test: <b>M</b> 136.3.	1
Result 95	Det. Limit	Units mg/L
	Result  1 Instrument: ICP LES (CLP) ILM01  Result  740  1 Instrument: ICP LES (CLP) ILM01  Result  49.  1 Instrument: ICP LES (CLP) ILM01  Result  5.6  1 Instrument: ICP LES (CLP) ILM01  Result  5.6  1 Instrument: ICP LES (CLP) ILM01  Result  57.  1 Instrument: ICP LES (CLP) ILM01  Result   Instrument: ICP	

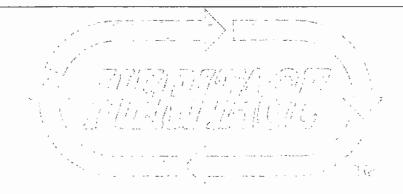
Lab Sample ID: A234854

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0.
Parameter	Result	Det. Limit	Units
NITIAL WEIGHT OR VOLUME	30.05		Grams
FINAL VOLUME	25		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080  Analyst: L. JULIAN Analysis Date: 04-AUG-9  Prep: PCB SONICATION EXTRACTION SW846-3550	1 Instrument: GC/ECD	Test: 0301.2. 0
Parameter	Result	Det. Limit Units
PCB AROCHLOR 1016	BDL	.08   mg/kg
PCB AROCHLOR 1221	BDL	.4 mg/kg
PCB AROCHLOR 1232	BDL	.08 mg/kg
PCB AROCHLOR 1242	BDL	.08 mg/kg
PCB AROCHLOR 1248	BDL	.08 mg/kg
PCB AROCHLOR 1254	BDL	.16 mg/kg
PCB AROCHLOR 1260	BDL	.16 mg/kg
PGB AROCHLOR 1262	BDL	.16 mg/kg

Sample Comments

BDL Below Detection Limit



Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234855
7901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	25-JUL-91 07:40

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON
P.O. BOX 6015
105 SOUTH MERIDIAN STREET
INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

Analyst: R. RIFE		Analysis Date: 30-JUL-91		Test: G401.7.	0
SOLIDS	Parameter	A second	Result	Det. Limit	Units Percent
GFAA ACID DIG Analyst: A. STOCKBL		SAMPLES (CLP) ILM01 Analysis Date: 30-JUL-91		Test: P930.7.	0
_NITIAL WEIGHT FINAL WEIGHT O			Résū[t -1 100	Det. Limit	Units Grams mL
ARSENIC GFAA Analyst: W. WATNESS Prep: GFAA AN	S	Analysis Date: 05-AUG-91 S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M903.2.	0
ARSENIC	Parameter		Result 17	Det. Limit	Units mg/kg

	:: 21-AUG-91   Instrument: GFAA	Test: M928.2.	0
Prep: GFAA ACID DIGESTION OF S/S/S SAM	NPLES (ULP) IEMUI Result	Det. Limit	Units
SELENIUM	BDL	1.00	mg/kg
DILUTION = 1:2			

THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Analysis Date: 12-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	Instrument: GFAA ) IEMO1	Test: <b>M934.2.</b>	0
Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.50	mg/kg

EMS HERITAGE LABORATORIES, INC.		Lab Sample I	D: A234855
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CL Analyst: K. HACK Analysis Date: 07-AUG-91	P) ILMO1	Test: P931.7.	O.
Parameter NITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1 Analyst: J. WARE Analysis Date: D8-AUG-91	Instrument: CVAA	Test: M920.2.	0
Parameter MERCURY	Result 0.28	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 30-JUL-91	ILM01	Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91		Test: P929.7.	1
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 15-AUG-91	ILM01	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	rinstrument: ILP	Test: M904.3.	0
Parameter BARIUM	Result 140	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILMO1	Test: M908.3.	0
Parameter CADMIUM	Result 1.1	Det. Limit 0.50	Units mg/kg
CHROMIUM ICP (CLP) ILM01  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M910.3.	0
Parameter CHROMIUM	Result 7.3	Det. Limit	Units mg/kg
LEAD ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M916.3.	0
Parameter LEAD	Result 94.	Det. Limit 5.0	Units mg/kg

Parameter

ZINC

Lab Sample ID: A234855

EMS HERITAGE LABURATURIES, INC.	L	ab Sample ID: AZ34855
NICKEL ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CLP) ILMO1	Test: M922.3. 0
Parameter  NICKEL	Result 9.6	Det. Limit Units 1.0 mg/kg
SILVER ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 09-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) 1LM01	Test: M930.3. 0
Parameter SILVER	Result BDL	Det. Limit Units 1.0 mg/kg
ALUMINUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M901.3, 0
Parameter ALUMINUM	Result 4700	Det. Limit Units 5.0 mg/kg
ANTIMONY ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M902.3. 0
Parameter ANTIMONY	Result BDL	Det. Limit Units 3.0 mg/kg
BERYLLIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M905.3. O
RYLLIUM	Result	Det. Limit Units 0.50 mg/kg
COBALT ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP	Test: M911.3. 0
Parameter COBALT	Result 10	Det. Limit Units 1.0 mg/kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M912.3. 0
Parameter COPPER	Result 31.	Det. Limit Units 2.0 mg/kg
VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M938.3. O
Parameter VANADIUM	Result 15.	Det. Limit Units 1.0 mg/kg
ZINC ICP (CLP) ILMO1  Analysis M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M939.3. 0

Units

2.0 mg/kg

Det. Limit

Result

78.

CALCIUM   CARSON   Analysis date: 19-AU-91   Instrument: 1CP   Test: M909.3   0	EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234855
IRON   ICP   (CLP)   ILMO	Analyst: J. CARSON Analysis Date: 19-AUG-91	Instrument: ICP S (CLP) ILMO1	Test: M909:3.	0
Analyst M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  IRON  Parameter  INON  INON  Parameter  INON  INON  Parameter  INON  INON  INON  INON  Parameter  INON  INO	LALCIUM			
Result   Det. Limit   Units   2.0 mg/kg	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP	Test: M915.3.	0
Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  MANGANESE ICP (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  MANGANESE  Parameter  MANGANESE  Parameter  Parameter  POTASSIUM ICP (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Potassium ICP (CLP) ILMO1  Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Potassium ICP (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  A	Parameter	Result		1
MAGNESE ICP (CLP) ILM01 Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  MANGANESE  Parameter  MANGANESE  POTASSIUM ICP (CLP) ILM01 Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  POTASSIUM ICP (CLP) ILM01 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Parameter  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP SODIUM  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP ILM01  Det. Limit Units ILM11  Units ILM11  Units ILM11  Units ILM11  Det. Limit ILM11  Units ILM11  Units ILM11  Units ILM11  Det. Limit ILM11  Units ILM11  Units ILM11  ILM111  ILM1111  ILM111  ILM111  ILM111  ILM1111  ILM1111	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP S (CLP) ILM01	Test: M918.3.	D
Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  MANGANESE  Parameter  MANGANESE  Potassium ICP (CLP) ILM01  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Potassium  Parameter  Potassium  Parameter  Potassium  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Result  Det. Limit Units Parameter  Result  Det. Limit Units SODIUM  Parameter  Result  Sodium  Parameter  Result  Det. Limit Units COLP  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Result  Det. Limit Units Coll mg/kg  LITHIUM ICP SW846-6010  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Result Det. Limit Units Coll mg/kg  MOLYBDENUM ICP SW846-6010	i e e e e e e e e e e e e e e e e e e e			i
MANGANESE  Parameter  POTASSIUM ICP (CLP) ILM01  Analysis Date: 06-AUG-91 Instrument: ICP POTASSIUM  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  POTASSIUM  Parameter  POTASSIUM  Parameter  POTASSIUM  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Potassium  Potassium  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Result  Det. Limit Units mg/kg  Test: M926.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Result Junits MILITHIUM ICP SW846-6010  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Result Junits MILITHIUM  Result Junits MILITHIUM  Parameter  Result Junits MILITHIUM  RE	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP S (CLP) ILMO1	Test: <b>M919.3</b> .	0
Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  POTASSIUM  POTASSIUM  Potable Parameter  Potable Potable Parameter  Potable Parameter  Potable Parameter  Potable Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Sodium ICP (CLP) ILMO1  Analysis Date: 06-AUG-91 Instrument: ICP Parameter  Result Sodium  Parameter  Sodium  Parameter  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Parameter  Parameter  Result  Parameter  Result  Det. Limit Units Parameter  Result  LITHIUM  Parameter  Result  2.5  MOLYBDENUM ICP SW846-6010	The same of the sa		ł	
SODIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Barameter SODIUM  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Result SODIUM  Barameter SODIUM  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Analyst: M. JAO Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Result LITHIUM Parameter  Result LITHIUM 2.5  Analysis Date: 06-AUG-91 Instrument: ICP Result LITHIUM 2.5  Analysis Date: 06-AUG-91 Instrument: ICP Analysis Date: 06-AUG-91 Instrument: ICP Analysis Moley Barameter LITHIUM  Result LITHIUM LITHI	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP S (CLP) ILMO1	Test: M926.3.	0
Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  SODIUM  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Test: M931.3. 0  Result Det. Limit Units 20. mg/kg  LITHIUM ICP SW846-6010  Analysis Date: 06-AUG-91 Instrument: ICP Test: M117.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Result Det. Limit Units Units 2.5  MOLYBDENUM ICP SW846-6010		Result		
SODIUM   35.   20. mg/kg	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP	Test: M931.3.	0
Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M117.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter Result Det. Limit Units 2.5 1.0 mg/kg  MOLYBDENUM ICP SW846-6010				
LITHIUM 2.5 1.0 mg/kg  MOLYBDENUM ICP SW846-6010	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP S (CLP) ILM01	Test: M117.3.	0
Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP S (CLP) ILMO1	Test: M121.3.	0
Parameter Result Det. Limit Units MOLYBDENUM BDL 1.0 mg/kg			l'	l I
STRONTIUM ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0			Test: M132.3.	0
Prep: FAA OR TUP ACTO DIGESTION OF S/S/S SAMPLES (CLP) TEMOI	Parameter	Result	Det. Limit	Units

Lab Sample ID: A234855

TIN ICP SW846-6010			
Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP	Test: M135.3.	0
Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CEP) TEMOT		
Parameter	Result	Det. Limit	Units
TIN	6.0	5.0	mg/kg

TITANIUM ICP SW846-60	10			
Analyst: M. JAO	Analysis Date: 06-AUG-91	Instrument: ICP	Test: M136.3.	0
Prep: FAA OR ICP ACI	D DIGESTION OF S/S/S SAMPLE	S (CLP) ILMO1		
Pa	arameter	Result	Det. Limit	Units
TITANIUM		85	1.0	mg/kg
TITANIUM DILUTION 1:50		85	1.0	mg/kg

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	30.05		Grams
FINAL VOLUME	25		mL.

POLYCHLORINATED BIPHENYLS (PCBS) SW846-80 Analyst: L. JULIAN Analysis Date: Prep: PCB SONICATION EXTRACTION SW846-3	04-AUG-91 Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.08	mg/kg
PCB AROCHLOR 1221	BDL	.4	mg/kg
PCB AROCHLOR 1232	BDL	.08	mg/kg
PCB AROCHLOR 1242	77) (7/4 BDL / 4) (13 14 14 14 14 14 14 14 14 14 14 14 14 14	.08	mg/kg
B AROCHLOR 1248	Mark BDL State of the	.08	mg/kg
B AROCHLOR 1254	HILL SECTION OF THE S	.16	mg/kg
PCB AROCHLOR 1260	BDL 24	.16	mg/kg
PCB AROCHLOR 1262	BDL	.16	mg/kg

Sample Comments

BDL Below Detection Limit

Service Location	Received	Lab ID
MS HERITAGE LABORATORIES, INC.	26-JUL-91	A234856
'901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	26-AUG-91	25-JUL-91 07:55

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON
P.O. BOX 6015
105 SOUTH MERIDIAN STREET
INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

TOTAL SOLIDS EPA 160.3 Analyst: R. RIFE	Analysis Date: 3	30-JUL- <b>91</b>	Test: G4	01.7. 0
Para	ameter	` Res	sult Det. Lim	it Units
SOLIDS	e de la companya de l	> 90		1 Percent

GFAA ACID DIGESTION OF S	S/S/S SAMPLES (CI	_P) ILMO1			
Analyst: A. STOCKBURGER	Analysis Date:	30-JUL-91		Test: P930.7. 0	
Param	meter 5	A A R	esult	Det. Limit	Units
IITIAL WEIGHT OR VOLUME	The diffil			G	Grams
FINAL WEIGHT OR VOLUME		100		Π	1L

ARSENIC GFAA (CLP) ILMO1  Analyst: W. WAINESS Analysis Date: 05-AUG-91  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	instrument: GFAA () ) ILMO1	Test: M903.2.	0
Parameter	Result	Det. Limit	Units
ARSENIC	5.7	2.5	mg/kg

SELENIUM GFAA (CLP) ILMO1  Analysis Date: 21-AUG-91  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M928.2.	0
Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.50	mg/kg

THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS  Analysis Date: 12-AUG-91  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M934.2.	0			
Parameter Result Det. Limit Units						
THALLIUM	BDL	0.50	mg/kg			

MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CL *nalyst: K. HACK Analysis Date: 07-AUG-91	P) ILMO1	Test: P931.7.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	0.4		Grams
FINAL VOLUME	100		m

Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAMP		Test: M920:2.	0 Units
Parameter MERCURY	Result BDL	0.050	mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 30-JUL-91		Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91	Γ	Test: P929.7.	
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 15-AUG-91		Test: P929.7.	***************************************
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
BARIUM ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP	Test: M904.3.	0
RIUM Parameter:	Result	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILM01  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M908.3.	0
Parameter			
CADMIUM	Result 0.98	Det. Limit 0.50	Units
CADMIUM	Result 0.98  Instrument: ICP	0.50	Units mg/kg
CADMIUM  CHROMIUM ICP (CLP) ILM01  Analysis M. JAO  Analysis Date: 06-AUG-91	Result 0.98  Instrument: ICP	0.50	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE Parameter	Result 0.98  Instrument: ICP S (CLP) ILM01 Result 8.7	0.50 Test: M910.3. Det. Limit	Units mg/kg 0 Units mg/kg
CHROMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE  Parameter CHROMIUM  LEAD ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91	Result 0.98  Instrument: ICP S (CLP) ILM01 Result 8.7	0.50 Test: M910.3. Det. Limit 1.0	Units mg/kg 0 Units mg/kg
CHROMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE  Parameter  CHROMIUM  LEAD ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE  Parameter	Result 0.98  Instrument: ICP S (CLP) ILM01 Result 8.7  Instrument: ICP S (CLP) ILM01 Result 44.	0.50  Test: M910.3.  Det. Limit 1.0  Test: M916.3.  Det. Limit	Units mg/kg  O Units mg/kg  O Units mg/kg

SILVER ICP (CLP)				
Analyst: M. JAO Prep: FAA OR ICF	Analysis Dat	te: 09-AUG-91   Instrument: ICP 'S/S SAMPLES (CLP)   ILMO1	Test: M930.3.	0
SILVER	Parameter	Result BDL	Det. Limit	Units mg/kg
ALUMINUM ICP (CLF Analyst: M. JAO Prep: FAA OR ICF	Analysis Dat	te: 06-AUG-91   Instrument: ICP  S/S SAMPLES (CLP)   ILM01	Test: M901.3.	0
ALUMINUM	Parameter	Result 6700	Det. Limit 5.0	Units mg/kg
ANTIMONY ICP (CLF Analyst: M. JAO Prep: FAA OR ICF	Analysis Dat	te: 06-AUG-91   Instrument: ICP S/S SAMPLES (CLP)   ILMO1	Test: M902.3.	0
ANTIMONY	Parameter	Result BDL	Det. Limit	Units mg/kg
BERYLLIUM ICP (CL Analyst: M. JAO Prep: FAA OR ICE	Analysis Dat	te: 06-AUG-91 Instrument: ICP /S/S SAMPLES (CLP) ILM01	Test: M905.3.	0
BERYLLIUM	Parameter	Result 1.3	Det. Limit 0.50	Units mg/kg
COBALT ICP (CLP) Analyst: M. JAO Prep: FAA OR ICE	Analysis Dat	re: 06-AUG-91 Instrument: ICP 'S/S SAMPLES (CLP) ILM01	Test: M911.3.	0
)BALT	Parameter	Result/ 5.0	Det. Limit	Units mg/kg
	1/23/24			
COPPER ICP (CLP) Analyst: M. JAO Prep: FAA OR ICF	ILM01 Analysis Dat	te: 06-AUG-91 Instrument: ICP S/S SAMPLES (CLP) ILM01	Test: M912.3.	0
Analyst: M. JAO	ILMO1 Analysis Da P ACID DIGESTION OF S/ Parameter	te: 06-AUG-91 Instrument: ICP /S/S SAMPLES (CLP) ILM01	Det. Limit	O Units mg/kg
Analyst: M. JAO Prep: FAA OR ICE  COPPER  prep blank was O.C  VANADIUM ICP (CLE	ILMO1  Analysis Dat P ACID DIGESTION OF S/ Parameter  030 mg/1  P) ILMO1  Analysis Dat	te: 06-AUG-91 Instrument: ICP 'S/S SAMPLES (CLP) ILM01	Det. Limit	Units mg/kg
Analyst: M. JAO Prep: FAA OR ICE  COPPER  prep blank was O.C  VANADIUM ICP (CLE	ILMO1  Analysis Dat P ACID DIGESTION OF S/ Parameter  030 mg/1  P) ILMO1  Analysis Dat	te: 06-AUG-91 Instrument: ICP (S/S SAMPLES (CLP) ILM01 Result IV 14.	Det. Limit 2.0  Test: M938.3.	Units mg/kg
Analyst: M. JAO Prep: FAA OR ICE  COPPER Prep blank was O.C  VANADIUM ICP (CLE Analyst: M. JAO Prep: FAA OR ICE  VANADIUM  ZINC ICP (CLP) IL Analyst: M. JAO	IEMO1  Analysis Dat P ACID DIGESTION OF S/ Parameter  030 mg/1  P) ILMO1  Analysis Dat P ACID DIGESTION OF S/ Parameter  LMO1  Analysis Dat Analysis Dat	te: 06-AUG-91 Instrument: ICP 'S/S SAMPLES (CLP) ILM01  Result 114.  te: 06-AUG-91 Instrument: ICP 'S/S SAMPLES (CLP) ILM01  Result	Det. Limit 2.0  Test: M938.3.	Units mg/kg 0 Units mg/kg
Analyst: M. JAO Prep: FAA OR ICE  COPPER Prep blank was O.C  VANADIUM ICP (CLE Analyst: M. JAO Prep: FAA OR ICE  VANADIUM  ZINC ICP (CLP) IL Analyst: M. JAO	IEMO1  Analysis Dat P ACID DIGESTION OF S/ Parameter  030 mg/1  P) ILMO1  Analysis Dat P ACID DIGESTION OF S/ Parameter  LMO1  Analysis Dat Analysis Dat	te: 06-AUG-91 Instrument: ICP S/S SAMPLES (CLP) ILM01  Result 14.  te: 06-AUG-91 Instrument: ICP S/S SAMPLES (CLP) ILM01  Result 18.	Det. Limit 2.0  Test: M938.3.  Det. Limit 1.0  Test: M939.3.	Units mg/kg 0 Units mg/kg
Analyst: M. JAO Prep: FAA OR ICE  COPPER Prep blank was O.C  VANADIUM ICP (CLE Analyst: M. JAO Prep: FAA OR ICE  VANADIUM  ZINC ICP (CLP) II Analyst: M. JAO Prep: FAA OR ICE  ZINC  CALCIUM ICP (CLP) Analyst: J. CARSON	ILMO1  Analysis Date P ACID DIGESTION OF S/ Parameter  030 mg/1  P) ILMO1  Analysis Date P ACID DIGESTION OF S/ Parameter  LMO1  Analysis Date P ACID DIGESTION OF S/ Parameter  ) ILMO1  Analysis Date Analysis Date Analysis Date Analysis Date Analysis Date	te: 06-AUG-91 Instrument: ICP 'S/S SAMPLES (CLP) ILM01  Result 14.  te: 06-AUG-91 Instrument: ICP 'S/S SAMPLES (CLP) ILM01  Result 18.	Det. Limit 2.0  Test: M938.3.  Det. Limit 1.0  Test: M939.3.	Units mg/kg  0  Units mg/kg  0  Units mg/kg

ASSIGNATION   CELP)   LEMO1	EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234856
MAGNES   M	Analysis M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	ES (CLP) ILMO1		
Analysis   JAO   Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMOI   Parameter   Paramete				
MANGANESE ICP (CLP) ILMO1	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP ES (CLP) ILM01	Test: M918.3.	0
Analysts M. JAD PRED: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  MANGANESE  Parameter  Parameter  POTASSIUM ICP (CLP) ILMO1  Analysis Date: 06 AUG-91 Instrument: ICP POTASSIUM ICP (CLP) ILMO1  Analysis Date: 06 AUG-91 Instrument: ICP POTASSIUM  POTASSIUM  Parameter  POTASSIUM  PARALYSIS M. JADO PRED: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  POTASSIUM  Parameter  POTASSIUM  Parameter  POTASSIUM  Parameter  POTASSIUM  Parameter  PARALOR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  PARALOR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter				
POTASSIUM ICP (CLP) ILM01 Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 POTASSIUM POTASSIU	Analysis Date: 06-AUG-91		Test: M919.3.	0
Analysts M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  POTASSIUM  Parameter  POTASSIUM				
POTASSIUM  SODIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1.  Parameter  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1.  LITHIUM ICP SW846-6010 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Parameter  Parameter  Parameter  Parameter  Parameter  Parameter  MOLYBDENUM ICP SW846-6010 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Parameter  BDL  Test: M121.3. 0  Test: M121.3. 0  Test: M121.3. 0  Test: M121.3. 0  Test: M122.3. 0  Test: M122.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  TINITY MICE Parameter  TINITY MICE TEST: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  TINITY MICE TEST: M135.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  TINITY MICE TEST: M135.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1	Analyst: M. JAO Analysis Date: 06-AUG-91		Test: M926.3.	0
Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  DIUM  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP  Analyst: M. JAO Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  Analysis Date: 06-AUG-91 Instrument: ICP Analysis M. JAO Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  MOLYBDENUM ICP SW846-6010 Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter  BDL  Test: M121.3. 0  Test: M132.3. 0				
LITHIUM ICP SW846-6010  Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  MOLYBDENUM ICP SW846-6010  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  MOLYBDENUM ICP SW846-6010  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  MOLYBDENUM  Parameter  BDL  Test: M121.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Test: M121.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  TIN ICP SW846-6010  Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  TIN ICP SW846-6010  Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  TIN ICP SW846-6010  Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Test: M132.3. 0  Test: M135.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01	Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP ES (CLP) ILMO1	Test: M931.3.	0
LITHIUM ICP SW846-6010  Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter LITHIUM  Parameter  MOLYBDENUM ICP SW846-6010  Analysis Mate: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  MOLYBDENUM  Parameter  BRESULT  Det. Limit Units William  Parameter  MOLYBDENUM  Parameter  BDL  Test: M121.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  STRONTIUM ICP SW846-6010  Analysis M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter  Parameter  To Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  TIN ICP SW846-6010  Analysis M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Analyst: M. JAO Analysis M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Parameter  To Instrument: ICP Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  TIN ICP SW846-6010 Analysis M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01	' DIUM AND REES WAR	265.(1)		I :
MOLYBDENUM ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M121.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  STRONTIUM ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  TIN ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0  TIN ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M135.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01	LITHIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M117.3.	0
Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter Result Det. Limit Units MDLYBDENUM  STRONTIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  Parameter Result Det. Limit Units MG/kg  TIN ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1  TIN ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M135.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1	Vii	1		
MOLYBDENUM  STRONTIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter Result Det. Limit Units T1. 1.0 mg/kg  TIN ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M135.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01	Analysis Date: 06-AUG-91	Instrument: ICP ES (CLP) ILMO1	Test: M121.3.	0
Analysis M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M132.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01  Parameter Result Det. Limit Units 71. 1.0 mg/kg  TIN ICP SW846-6010 Analysis M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M135.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01				
STRONTIUM  71. 1.0 mg/kg  TIN ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M135.3. 0  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01	Analyst: M. JAO Analysis Date: 06-AUG-91		Test: M132.3.	0
Analysis M. JAO Analysis Date: 06:AUG-91 Instrument: ICP Test: M135.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01			l	
Parameter Result Det. Limit Units	Analyst: M. JAO Analysis Date: 06-AUG-91		Test: M135.3.	0
TIN   BDL   5.0   mg/kg			Det. Limit 5.0	

Lab Sample ID: A234856

TITANIUM ICP SW846-601 Analyst: M. JAO Prep: FAA OR ICP ACID	Analysis Date: 0	06-AUG-91 Instrument: ICP SAMPLES (CLP) ILM01	Test: M136.3.	0
Par	ameter	Result 53	Det. Limit	Units ma/ka
DILUTION 1:50		100		

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91 Test: P231.1. 0					
Parameter	Result	Det. Limit	Units		
INITIAL WEIGHT OR VOLUME	29.81		Grams		
	25		mL		

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080  Analyst: L. JULIAN Analysis Date: 04-AUG-9 Prep: PCB SONICATION EXTRACTION SW846-3550	1 Instrument: GC/ECD	Test: 0301.2.	0
Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	.4	mg/kg
PCB AROCHLOR 1221	BDL	2	mg/kg
PCB AROCHLOR 1232	BDL	.4	mg/kg
PCB AROCHLOR 1242	BDL	.4	mg/kg
PCB AROCHLOR 1248	BDL	.4	mg/kg
PCB AROCHLOR 1254	BDL	.8	mg/kg
PCB AROCHLOR 1260	3.3	.8	mg/kg
PCB AROCHLOR 1262	BDL	.8	mg/kg
NOTE: SAMPLE DILUTED 1:5 BECAUSE OF HIGH 1260			

		4	,	Sample Comments	
BDL	Below Detection				
			,	and the second control of the second control	

Quality Assurance Officer: Harbusch

HABusch

Service Location	Received	Lab ID
5MS HERITAGE LABORATORIES, INC.	26-JUL-91	A234857
'901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampl ed
	03-SEP-91	25-JUL-91 08:25

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

TOTAL SOLIDS EPA 160.3 Analyst: R. RIFE	Analysis Date: 30-JUL-91		Test: G401.7.	0
Parameter	9	Result	Det. Limit	Units
SOLIDS	A TO SEC. TO SEC. SEC. SEC. SEC. SEC. SEC. SEC. SEC.	89	1	Percent

GFAA ACID DIGESTION OF S/S/S Analyst: A. STOCKBURGER	SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91	77/25283323		Test: P930.7.	0
Parameter	and the state of the state of the	Result		Det. Limit	Units
IITIAL WEIGHT OR VOLUME	= Mim(Mn)	i	· .		Grams
FINAL WEIGHT OR VOLUME		100			mL

ARSENIC GFAA (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: 05-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP)	Instrument: GFAA 7.4.	Test: M903.2. C	)
Parameter	Result	Det. Limit	Units
ARSENIC	12	2.5	mg/kg

SELENIUM GFAA (3 POINT MSA) Analyst: W. WATNESS Prep: GFAA ACID DIGESTION O	Analysis Date: 21-AUG-91 Instrument: GFAA	Test: M928.6.	0
Parameter	Result	Det. Limit	Units
SELENIUM	2.0	0.50	mg/kg
ADDITION 1	0,010		mg/kg
ADDITION 2	0.020		mg/kg
ADDITION 3	0.030		mg/kg
SAMPLE	0.0093		Conc
SAMPLE + ADD 1	0.015		Conc
SAMPLE + ADD 2	0.020		Conc
SAMPLE + ADD 3	0.025		Conc
DILUTION	1		

THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Analysis Date: 16-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M934.2.	0
Parameter I IHALLIUM	Result BDL	Det. Limit	Units mq/kq
DILUTION = 1:2			

Parameter	BDL	Det. Limit	mg/kg
IHALLIUM   DILUTION = 1:2	DUL	1.0	ilig/ kg
DILUTION - 1.2			
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CL	P) TIMOT		
Analyst: K. HACK Analysis: Date: 07-AUG-91	/ 11:101	Test: P931.7.	0
Parameter	Result	Det. Limit	Units
INITIAL METCHT OF VOLUME	0.4	Det. Limit	Grams
FINAL VOLUME	100		mL mL
TITULE FOLVILE		,	
MERCURY CVAA (CLP) ILMO1			
Analyst: J. WARE Analysis Date: 08-AUG-91	Instrument: CVAA	Test: M920.2.	0
Analyst: J. WARE Analysis Date: 08-AUG-91 Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAMP	LES (CLP) ILMO1		
Parameter	Result	Det. Limit	Units
MERCURY	0.16	0.050	
TIEROOKT	0.10	0.000	9/ Ng
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP)	TLMO1		
Analyst: S. STRUEWING Analysis Date: 30-JUL-91	y n <del>e politice de</del> la companya de la companya de la companya della	Test: P929.7.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1	Det. Limit	Grams
FINAL WEIGHT OR VOLUME	100		mL
TIME WEIGHT ON FOCULE	The state of the s		
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP)	TLMO1		
Analyst: S. STRUEWING Analysis Date: 02-AUG-91	20102	Test: P929.7.	1
Paraméter .	Result	Det. Limit	Units
ITTIAL WEIGHT OR VOLUME		Det. Limit	Grams
_ VITIAL WEIGHT OR VOLUME	100		mL
	/ /		!!!!
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP)	TI MO1		
Analyst: S. STRUEWING Analysis Date: 15-AUG-91	/ ILHOI	Test: P929.7.	2
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1	Det. Limit	Grams
FINAL WEIGHT OR VOLUME	100		mL mL
THAL WETCHT ON VOCCITE	1. 1.00		III.L
BARIUM ICP (CLP) ILMO1			
	Instrument ICP	Test: M904.3.	n
Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CLP) TIMO1		Š
		Pot 15-54	Units
Parameter BARIUM	Result 120	Det. Limit	
DAILTOLI	120	1.0	mg/kg
CARMILIM TOD FORDA TEMOT			
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91	Instrument: IFD	Test: M908.3.	n
Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		100.5.	-
		Dot Jimit	Units
Parameter	Result	Det. Limit 0.50	Units mg/kg
CADMILIM	126		IIIY/ <b>N</b> Y
CADMIUM		0.50	
	2.6	0.30	
CHROMIUM ICP (CLP) ILMO1			
CHROMIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP	Test: M910.3.	
CHROMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M910.3.	0
CHROMIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP		O Units

EMS HERITAGE LABORATORIES, INC.	L	ab Sample ID: A234857
LEAD ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CLP) ILMO1	Test: M916.3. 0
Parameter LEAD	Result 350	Det. Limit Units 5.0 mg/kg
NICKEL ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M922.3. D
Parameter NICKEL	Result 13.	Det. Limit Units 1.0 mg/kg
SILVER ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M930.3. 0
Parameter SILVER	Result	Det. Limit Units 1.0 mg/kg
ALUMINUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M901:3. 0
Parameter ALUMINUM	Result 4500	Det. Limit Units 5.0 mg/kg
ANTIMONY ICP (CLP) ILMOI  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M902.3. 0
VTIMONY Parameter	Result. BDL	Det. Limit Units 3.0 mg/kg
BERYLLIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument:::ICP	Test: M905.3. 0
Parameter BERYLLIUM	Result 1.8	Det. Limit Units 0.50 mg/kg
COBALT ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP	Test: M911.3. 0
Parameter COBALT	Result 4.5	Det. Limit Units 1.0 mg/kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M912.3. 0
Parameter COPPER	Result 76.	Det. Limit Units 2.0 mg/kg
VANADIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMOI	Test: M938.3. 0
Parameter VANADIUM	Result	Det. Limit Units 1.0 mg/kg

EMS HERITAGE LABORATORIES, INC.	L	ab Sample II	J: AZ3485/
ZINC ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M939.3.	
ZINC Parameter	Result 290	Det. Limit 2.0	Units mg/kg
CALCIUM ICP (CLP) ILMO1  Analyst: J. CARSON Analysis Date: 19-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M909.3.	0
Parameter CALCIUM	Result 85000	Det. Limit 1000	Units mg/kg
IRON ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M915.3.	0
Parameter IRON	Result 11000	Det. Limit 2.0	Units mg/kg
MAGNESIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M918.3.	D
Parameter MAGNESIUM	Result 3200	Det. Limit 20.	Units mg/kg
MANGANESE ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M919.3.	0
Parameter ANGANESE	Rèsult \	Det. Limit	Units mg/kg
POTASSIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M926.3.	.0
Parameter POTASSIUM	Result All 700	Det. Limit 20.	Units mg/kg
SODIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M931.3.	0
Parameter SODIUM	Result 98.	Det. Limit 20.	Units mg/kg
LITHIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M117.3.	0
Parameter LITHIUM	Result 4.7	Det. Limit	Units mg/kg
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M121.3.	0
Parameter MOLYBDENUM	Result BDL	Det. Limit	Units mg/kg

STRONTIUM ICP SW846-6010 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M132.3.	0
Parameter	Result 71.	Det. Limit	Units ma/ka

TIN ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMOI	Test: M135.3.	0
Parameter	Result	Det. Limit	Units
TIN	6.5	5.0	mg/kg

TITANIUM ICP SW846-6010  Analysis M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M136.3.	0
Parameter	Result	Det. Limit	Units
TITANIUM	100		mg/kg

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	30.31		Grams
FINAL VOLUME	25		mL

POLYCHLORINATED BIPH Analyst: L. JULIAN Prep: PCB SONICATIO	ENYLS (PCBS)  Anal N EXTRACTION	SW846-8080 ysis Date: 04-AUG-91 SW846-3550	Instrument: GC/ECD	A THE	Test: 0301.2.	0
	Parameter	11 3/1 3/11 14	Result		Det. Limit	Units
B AROCHLOR 1016			BDL	: _	. 4	mg/kg
B AROCHLOR 1221			BDL		2	mg/kg
PCB AROCHLOR 1232	- N A A A	M. ALKHIO.	BDL	·-	.4	mg/kg
PCB AROCHLOR 1242	e e e e e e e e e e e e e e e e e e e	:	BDE	Z I	.4	
PCB AROCHLOR 1248		- AA - 10 - 00 - 11	BDL		. 4	mg/kg
PCB AROCHLOR 1254	,	an energy conservation of a property	BDE	¥ve ivis	.8	mg/kg
PCB AROCHLOR 1260		,	2.9		.8	mg/kg
PCB AROCHLOR 1262		Tarris (A. 1922) - Alla Alla Alla Alla Alla Alla Alla Al	BDL		.8	mg/kg
NOTE: SAMPLE DILUTED	1:5 BECAUSE	OF HIGH 1260				<u> </u>

Sample Comments

BDL Below Detection Limit

Service Location	Received	Lab ID
5MS HERITAGE LABORATORIES, INC.	26-JUL-91	A234858
'901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	03-SEP-91	25-JUL-91 08:45

Report To

-

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. PAT AUSTIN P.O. BOX 6015 105 SOUTH MERIDIAN INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Bill To

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

S731

TOTAL SOLIDS EPA 160.3

Analyst: R. RIFE Analysis Date: 30-JUL-91 Test: G401.7. 0

Parameter Result Det. Limit Units
SOLIDS 66 1 Percent

GFAA ACID DIGESTION OF S					
Analyst: A. STOCKBURGER	Analysis Dat	e: 30-JUL-91		Test: P930.7.	0.
Paramé	ter	179 11 95	Result	Det. Limit	Units
ITIAL WEIGHT OR VOLUME	A William	7.8 s / / / A / /		<i>/</i>	Grams
FINAL WEIGHT OR VOLUME		100			mL

ARSENIC GFAA (CLP) ILMO1			
Analyst: W. WATNESS Analysis Date: 05-AUG-91	Instrument: GFAA	Test: M903.2.	0
Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	/) 1LMU1		
Parameter	Result	Det. Limit	Units
Parameter ARSENIC	Result 8.5	Det. Limit 4.0	Units mg/kg

SELENIUM GFAA (3 POINT MSA) (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: Prep: GFAA ACID DIGESTION OF S/S/S SAMP		Test: M928.6. 0	
Parameter	Result	Det. Limit Units	
SELENIUM	0.88	0.50 mg/kg	
ADDITION 1	0.010	mq/kq	
ADDITION 2	0.020	mg/kg	
ADDITION 3	0.030	mg/kg	
SAMPLE	0.0060	Conc	
SAMPLE + ADD 1	0.012	Conc	
SAMPLE + ADD 2	0.019	Conc	
	0.027	Conc	
DILUTION	1		
"MACCEPTABLE SINGLE ADDITION RECOVERY REQU	UIRED 3-POINT MSA.		

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234858
THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLP	Instrument: GFAA ) ILMO1	Test: M934,2.	0
Parameter  LIHALLIUM	Result BDL	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CL Analyst: K. HACK Analysis Date: 07-AUG-91		Test: P931.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1  Analyst: J. WARE Analysis Date: 08-AUG-91  Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAMP	Instrument: CVAA LES (CLP) ILMO1	Test: M920.2.	0
Parameter MERCURY	Result	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 30-JUL-91		Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 02-AUG-91		Test: P929.7.	1
NAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) Analyst: S. STRUEWING Analysis Date: 15-AUG-91	ILMO1	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
BARIUM ICP (CLP) ILMO1 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S. (CLP) ILMO1	Test: M904.3.	0
Parameter BARIUM	Resúlt 88.	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M908.3.	0
Parameter CADMIUM	Result	Det. Limit 0.50	Units mg/kg
CHROMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M910.3.	
Parameter CHROMIUM	Result 9.8	Det. Limit	Units mg/kg

EMS HERITAGE LABORATORIES, INC.	<u> </u>	ab Sample I	D: A234858
LEAD ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (GLP) ILMO1	Test: M916.3.	0
Parameter LLAD	Result 99.	Det. Limit 5.0	Units mg/kg
NICKEL ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M922.3.	0
Parameter NICKEL	Result 12.	Det. Limit	Units mg/kg
SILVER ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M930.3.	0
Parameter SILVER	Result BDL	Det. Limit	Units mg/kg
ALUMINUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M901.3.	0
Parameter ALUMINUM	Result 4000	Det. Limit 5.0	Units mg/kg
ANTIMONY ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M902.3.	0
TIMONY	BDL/ Result/	Det. Limit	Units mg/kg
BERYLLIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CLP) ILMO1	Test: M905.3.	0
Parameter BERYLLIUM	Result 11/4	Det. Limit 0.50	Units mg/kg
COBALT ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M911.3.	0
Parameter COBALT	Result 5.7	Det. Limit	Units mg/kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M912.3.	0
Parameter COPPER	Result 37.	Det. Limit 2.0	Units mg/kg
VANADIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M938.3.	0
Parameter VANADIUM	Result 16.	Det. Limit	Units mg/kg

EMS HERITAGE LABORATORIES, INC.	L	ab Sample ID: A234858
ZINC ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP	Test: M939.3, 0
Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE  Parameter	S (ULP) ILMUI Result	Det. Limit Units
LINC	230	2.0 mg/kg
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) IUMO1	Test: M909.3. 0
Parameter	Result	Det. Limit Units
CALCIUM	15000	20. mg/kg
IRON ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M915.3. 0
Parameter IRON	Result 17000	Det. Limit Units 2.0 mg/kg
MAGNESIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M918.3. 0
Parameter MAGNESIUM	Result 2100	Det. Limit Units 20. mg/kg
MANGANESE ICP (CLP) ILMO1 Analysis M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLI		Test: M919.3, 0
NGANESE Parameter	Result 1100	Det. Limit Units 1.0 mg/kg
POTASSIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLI		Test: M926.3. 0
Parameter POTASSIUM	Result 440	Det. Limit Units 20. mg/kg
SODIUM ICP (CLP) ILMO1		
Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLI	Instrument: ICP ES (CLP) ILMO1	Test: M931.3. 0
Parameter SODIUM	Result 99.	Det. Limit Units 20. mg/kg
LITHIUM ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL		Test: M117.3, D
Parameter LITHIUM	Result 3.1	Det. Limit Units 1.0 mg/kg
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL		Test: M121.3. 0
Parameter MOLYBDENUM	Result BDL	Det. Limit Units 1.0 mg/kg

		•	
STRONTIUM ICP SW846-6010 Analyst: M. JAO Analysis Date: 06-AUG-91	Instrument: ICP	Test: M132.3.	0
Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CLP) ILMO1		
Parameter	Result	Det. Limit	Units
STRUNTIUM	29.	1.0	mg/kg

TIN ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMOI	Test: M135.3.	0
Parameter	Result	Det. Limit	Units
TIN	150	5.0	mg/kg

TITANIUM ICP SW846-6010  Analysis M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M136.3.	0
Parameter	Result	Det. Limit	Units
TITANIUM	69		mg/kg

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91 Test: P231.1, 0			
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	29.76		Grams
FINAL VOLUME	25		mL.

Analyst: L. JULIAN	NYLS (PCBS) SW846-8080 Analysis Date: 04-A EXTRACTION SW846-3550	JG-91 Instrument: GC/ECD	Test: 0301.2. 0
Pa	rameter / // //	( Rèsult	Det. Limit Units
B AROCHLOR 1016	(4) [3] (1-24] [7] (1)	BDE 2 M Comment	.08 mg/kg
B AROCHLOR 1221	$-1.03 \pm R_{\rm B}/R_{\rm B}/R_{\rm B}$	7 1/4 BOK (5///) R. A. A.	.4 mg/kg
PCB AROCHLOR 1232		BDL 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	.08 mg/kg
PCB AROCHLOR 1242		BDL	.08 mg/kg
PCB AROCHLOR 1248	And the second of the second o	BDL	.08 mg/kg
PCB AROCHLOR 1254	Miles to the second mean mean mean means and the second mean means are the second mean means and the second mean means are the second m	BDETALLER	.16 mg/kg
PCB AROCHLOR 1260		0.35	.16 mg/kg
PCB AROCHLOR 1262		BDL	.16 mg/kg

Sample Comments

BDL Below Detection Limit

### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
TMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234859
901 W. MORRIS ST.	Complete	PO Number
I INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	03-SEP-91	25-JUL-91 09:30

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

S732

TOTAL SOLIDS EPA 160.3 Analyst: R. RIFE	Analysis Date: 30-JUL-91		Test: G401.7.	0
Parameter	A	Result	Det. Limit	Units
SOLIDS		0	1	Percent

GFAA ACID DIGESTION OF S/S/S/SAMPLES (CLP) ILMO1	
Analyst: A. STOCKBURGER Analysis/Date: 30-JUL-91	Test: P930.7. 0
Paraméter A 1 - 1 / 1 / 1 / Résult	Det. Limit Units
IITIAL WEIGHT OR VOLUME	Grams
FINAL WEIGHT OR VOLUME 100	mL

ARSENIC GFAA (CLP) ILMO1  Analyst: W. WATNESS Analysis Date: 05-A  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES	ug-91 Instrument: GFAA (CLP) ILMO1	Test: M903:2. 0
Parameter	Result	Det. Limit Units
ARSENIC	12	5.0 mg/kg
DILUTION = 1:10		

SELENIUM GFAA (3 POINT MSA) (CLP) ILMO1 Analyst: W. WATNESS Analysis Date: 21-AUG-91 Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLF	Instrument: GFAA ) ILMOI	Test: M928.6.	0
Parameter	Result	Det. Limit	Units
SELENIUM	1.4	0.50	mg/kg
ADDITION 1	0.010		mg/kg
ADDITION 2	0.020		mg/kg
ADDITION 3	0.030		ma/ka
SAMPLE	0.0091		Conc
SAMPLE + ADD 1	0.016		Conc
SAMPLE + ADD 2	0.022		Conc
SAMPLE + ADD 3	0.029		Conc
DILUTION	1		
UMACCEPTABLE SINGLE ADDITON RECOVERY REQUIRED 3-P	OINT MSA.		

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234859
THALLIUM GFAA (CLP) ILMO1  Analyst: P. SIMS  Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CL	Instrument: GFAA P) ILMO1	Test: M934.2.	0
Parameter LIHALLIUM	Result BDL	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (C Analysis Date: 12-AUG-91		Test: P931.7.	0
Parameter INITIAL WEIGHT OR VOLUME WEINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1 Analyst: K. HACK Analysis Date: 15-AUG-91 Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAM	Instrument: CVAA MPLES (CLP) ILMO1	Test: M920.2.	0
Parameter MERCURY	Result BDL	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLF Analyst: S. STRUEWING Analysis Date: 30-JUL-91		Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLF Analysis Date: 02-AUG;91		Test: P929.7.	1
Parameter INITIAL WEIGHT OR VOLUME NAL WEIGHT OR VOLUME	Result 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLE Analyst: S. STRUEWING Analysis Date: 15-AUG-91	) ILMO1	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result	Det. Limit	Units Grams mL
BARIUM ICP (CLP) ILMO1  Analyst: M. JAO  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILM01	Test: M904.3.	0
Parameter BARIUM	Result 81.	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILM01	Test: M908.3.	0
Parameter CADMIUM	Result	Det. Limit 0.50	Units mg/kg
CHROMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL	Instrument: ICP ES (CLP) ILMO1	Test: M910.3.	0.
Parameter CHROMIUM	Result 12.	Det. Limit	Units mg/kg

Lab Sample ID: A234859 EMS HERITAGE LABORATORIES, INC. LEAD ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M916.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 Units Result Det. Limit Parameter 5.0 | mg/kg 57. I LEAD NICKEL ICP (CLP) ILM01 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M922.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Result Det. Limit Units Parameter NICKEL 17. 1.0 mq/kq SILVER ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 09-AUG-91 Instrument: ICP Test: M930.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMOI Units Result Det. Limit Parameter ma/ka SILVER BDI 1.0 ALUMINUM ICP (CLP) ILMO1 Analysis Date: 06-AUG-91 Instrument: ICP Test: M901.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Det. Limit Units Result Parameter 3100 5.0 mg/kg ALUMINUM ANTIMONY ICP (CLP) ILMO1 Analysis Date: 06-AUG-91 Instrument: ICP Test: M902.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Units Det. Limit /V/ // Result Parameter BDL/ 3.0 mg/kg TIMONY BERYLLIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M905.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILM01 ----Result 1114 Units Parameter Det. Limit  $0.50 \mid mq/kq$ 1.8 BERYLLIUM COBALT ICP (CLP) ILMO1 Analysis Date: 06-AUG-91 Instrument: ICP Test: M911.3. 0 Analyst: M. JAO Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMOI Result Det. Limit Units Parameter 1.0 | mg/kg 5.2 COBALT COPPER ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Instrument: ICP Test: M912.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Units Parameter Result Det. Limit 17. 2.0 mg/kg prep blank was 0.030 mg/l VANADIUM ICP (CLP) ILM01 Analysis Date: 06-AUG-91 Instrument: ICP Analyst: M. JAO Test: M938.3. 0 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP) ILMO1 Result Det. Limit Units Parameter

18.

NADIUM

mq/kg

1.0

EMS HERITAGE LABORATORIES, INC.	L	ab Sample ID: A234859
ZINC ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	S (CLP) ILMO1	Test: M939.3, 0
Parameter	Result	Det. Limit Units 2.0 mg/kg
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M909.3. D
Parameter CALCIUM	Result 38000	Det. Limit Units 20. mg/kg
IRON ICP (CLP) ILMO1 Analyst: M. JAO Analyst:	Instrument: ICP S (CLP) ILMO1	Test: M915.3. O
Parameter IRON	Result 17000	Det. Limit Units 2.0 mg/kg
MAGNESIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M918.3. O
Parameter MAGNESIUM	Result 1700	Det. Limit Units 20. mg/kg
MANGANESE ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M919.3. O
NGANESE Parameter	3000 - Result	Det. Limit Units 1.0 mg/kg
POTASSIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M926.3, 0
POTASSIUM Parameter	Result (W	Det. Limit Units 20. mg/kg
SODIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M931.3. 0
Parameter SODIUM	Result 220	Det. Limit Units 20. mg/kg
LITHIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M117.3, 0
Parameter LITHIUM	Result 2.4	Det. Limit Units 1.0 mg/kg
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M121.3. D
Parameter MOLYBDENUM	Result BDL	Det. Limit Units 1.0 mg/kg

Lab Sample ID: A234859

STRONTIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M132.3.	0
Parameter	Result	Det. Limit	Units
SIRONTIUM	41.	1.0	mg/kg

TIN ICP SW846-6010  Analysis M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M135.3.	0
Parameter	Result	Det. Limit 5.0	Units
TIN	26		mg/kg

TITANIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M136.3.	0
Parameter	Result	Det. Limit	Units
TITANIUM	65	1.0	mg/kg

PCB SONICATION EXTRACTION SW846-3550 Analyst: D. FULP Analysis Date: 29-JUL-91		Test: P231.1.	0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	29.84		Grams
FINAL VOLUME	25		mL.

POLYCHLORINATED Analyst: L. JULIAN Prep: PCB SONI		Analysis Date: 04-AUG-91 Ir	strument: GC/ECD	(a. 1. Na	Test	: 0301.2.	0
	Parameter		Result		Det.	Limit	Units
B AROCHLOR 101	.6	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 B	DL / "/ 🖖 🗀	. i .		.08	mg/kg
B AROCHLOR 122	<b>1</b>	-7 ( <sup>1</sup> / <sub>2</sub> / <sub>2</sub> / <sub>2</sub> / <sub>2</sub>   1/2   2 <b>88</b>				.4	mg/kg
PCB AROCHLOR 123	ر ' نوا	e i az a akid akid di B	DL	, ·,		.08	mg/kg
PCB AROCHLOR 124	2	, î.B	DL	· * *	Ä	.08	mg/kg
PCB AROCHLOR 124	·8	B	DL	,		.08	mg/kg
PCB AROCHLOR 125	4	1 B.	D.L		÷	.16	mg/kg
PCB AROCHLOR 126	50	. В	DL			.16	mg/kg
PCB AROCHLOR 126	52	:B	DL	;		.16	mg/kg

Sample Comments

BDLBelow Detection Limit

### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
- FMS HERITAGE LABORATORIES, INC.	26-JUL-91	A234860
901 W. MORRIS ST.	Complete	PO Number
INDIANAPOLIS, IN 46231	22-AUG-91	70D
(317)243-8305	Printed	Sampled
	03-SEP-91	25-JUL-91 10:00

Report To

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.
PAT AUSTIN
P.O. BOX 6015
105 SOUTH MERIDIAN
INDIANAPOLIS, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM CERCLA - S/S/S

S733

TOTAL SOLIDS EPA 160.3 Analyst: R. RIFE	Analysis Date: 30-JUL-91		Test: G401.7.	0
SOLIDS Parameter		Result 95	Det. Limit	Units Percent
GFAA ACID DIGESTION OF S/S/S Analyst: A. STOCKBURGER	SAMPLES (CLP) ILMO1 Analysis Date: 30-JUL-91	and south A. A. d	Test: P930.7.	0
Parameter  IITIAL WEIGHT OR VOLUME  ETNAL WEIGHT OR VOLUME		Result 1	Det. Limit	Units Grams mL
ARSENIC GFAA (CLP) ILMO1 Analyst: W. WATNESS Prep: GFAA ACID DIGESTION OF	Analysis Date: 05-AUG-91 - S/S/S SAMPLES (CLP		Test: M903.2.	0
Parameter		Result	Det. Limit	Units

SELENIUM GFAA (3 POINT MSA) (CLP) ILMO Analyst: W. WAINESS Analysis Da Prep: GFAA ACID DIGESTION OF S/S/S S/	te: 21-AUG-91 Instrument: GFAA	Test: M928.6. 0
Parameter	Result	Det. Limit Units
SELENIUM	0.74	0.50 mg/kg
ADDITION 1	0.010	mg/kg
ADDITION 2	0.020	mg/kg
ADDITION 3	0.030	mg/kg
SAMPLE	0.0053	Conc
SAMPLE + ADD 1	0.013	Conc
SAMPLE + ADD 2	0.021	Conc
SAMPLE + ADD 3	0.029	Conc
DILUTION	1	

EMS HERITAGE LABORATORIES, INC.		ab Sample I	D: A234860
THALLIUM GFAA (CLP) ILMO1 Analyst: P. SIMS Prep: GFAA ACID DIGESTION OF S/S/S SAMPLES (CLI	Instrument: GFAA P) ILMO1	Test: M934.2.	0
Parameter [ IHALLIUM	Result BDL	Det. Limit 0.50	Units mg/kg
MERCURY CVAA ACID DIGESTION OF S/S/S SAMPLES (CI Analyst: J. WARE Analysis Date: 12-AUG-91		Test: P931.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL VOLUME	Result 0.4 100	Det. Limit	Units Grams mL
MERCURY CVAA (CLP) ILMO1 Analyst: K. HACK Analysis Date: 15-AUG-91 Prep: MERCURY CVAA ACID DIGESTION OF S/S/S SAM	Instrument: CVAA PLES (CLP) ILMO1	Test: M920.2.	0
Parameter MERCURY	Result BDL	Det. Limit 0.050	Units mg/kg
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 30-JUL-91		Test: P929.7.	0
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	Result 1 100	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analysis Date: 02-AUG-91	) [IEMO1	Test: P929.7.	1
Parameter INITIAL WEIGHT OR VOLUME NAL WEIGHT OR VOLUME	Result 1	Det. Limit	Units Grams mL
FAA OR ICP ACID DIGESTION OF S/S/S SAMPLES (CLP Analyst: S. STRUEWING Analysis Date: 15-AUG-91	) IEMO1//	Test: P929.7.	2
Parameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLÜME	Result 1 100	Det. Limit	Units Grams ML
BARIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL		Test: M904,3.	0
Parameter BARIUM	Result	Det. Limit	Units mg/kg
CADMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL		Test: M908.3.	D
Parameter CADMIUM	Result 0.57	Det. Limit 0.50	Units mg/kg
CHROMIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPL		Test: M910:3.	0
Parameter CHROMIUM	Result 6.6	Det. Limit	Units mg/kg

EMS HERITAGE LABORATORIES, INC.		Lab Sample ID: A234860
LEAD ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME	91 Instrument: ICP PLES (CLP) ILM01	Test: M916.3. 0
Parameter LEAD	Result	Det. Limit Units 5.0 mg/kg
NICKEL ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME	91 Instrument: ICP PLES (CLP) ILMO1	Test: M922.3. 0
NICKEL Parameter	Result 7.9	Det. Limit Units 1.0 mg/kg
SILVER ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 09-AUG-Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME	91 Instrument: ICP PLES (CLP) ILMO1	Test: M930:3. 0
Parameter SIL <b>V</b> ER	Result BDL	Det. Limit Units 1.0 mg/kg
ALUMINUM ICP (CLP) ILMO1  Analysis M. JAO Analysis Date: 06-AUG-Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME	91 Instrument: ICP PLES (CLP) ILMO1	Test: M901.3. 0
Parameter ALUMINUM	Result 5700	Det. Limit Units 5.0 mg/kg
ANTIMONY ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG- Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME	91 Instrument: ICP PLES (CLP) ILMO1	Test: M902.3. 0
ITIMONY A NOT THE REPORT OF THE PARTY OF THE	BDL Result/	Det. Limit Units 3.0 mg/kg
BERYLLIUM ICP (CLP) ILMO1  Analysis M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME		Test: M905.3. D
Parameter BERYLLIUM	Result 1.3	Det. Limit Units 0.50 mg/kg
COBALT ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME	91 Instrument: ICP PLES (CLP) ILMO1	Test: M911.3. 0
Parameter COBALT	Result 10.	Det. Limit Units 1.0 mg/kg
COPPER ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME		Test: M912.3. 0
Parameter COPPER prep blank was 0.030 mg/l	Result 7.2	Det. Limit Units 2.0 mg/kg
μι ερ υταπκ was υ.υσυ πισ/ ι		
VANADIUM ICP (CLP) ILMO1 Analyst: M. JAO. Analysis Date: 06-AUG-Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAME		Test: M938.3. O
Parameter UNADIUM	Result 14.	Det. Limit Units 1.0 mg/kg

EMS HERITAGE LABORATORIES, INC.	L	ab Sample I	D: A234860
ZINC ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILM01	Test: M939:3.	0
Parameter ZINC	Result 27.	Det. Limit 2.0	Units mg/kg
CALCIUM ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M909.3.	0
Parameter CALCIUM	Result 630	Det. Limit 20.	Units mg/kg
IRON ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M915.3.	0
Parameter I RON	Result 8700	Det. Limit 2.0	Units mg/kg
MAGNESIUM ICP (CLP) ILMO1  Analyst: M. JAO Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M918.3.	0
Parameter MAGNESIUM	Result 800	Det. Limit 20.	Units mg/kg
MANGANESE ICP (CLP) ILMO1  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M919:3.	0
NGANESE	1100 Result	Det. Limit	Units mg/kg
POTASSIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S, SAMPLE	Instrument: ICP ✓	Test: M926.3.	D
POTASSIUM Parameter	Result IV .	Det. Limit 20.	Units mg/kg
SODIUM ICP (CLP) ILMO1 Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE		Test: M931.3.	0
Parameter SODIUM	Result BDL	Det. Limit 20.	Units mg/kg
LITHIUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M117.3.	0
Parameter LITHIUM	Result	Det. Limit	Units mg/kg
MOLYBDENUM ICP SW846-6010  Analyst: M. JAO Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP ES (CLP) ILMO1	Test: M121.3.	0
Parameter MOLYBDENUM	Result BDL	Det. Limit	Units mg/kg

STRONTIUM ICP SW846-6010  Analyst: M. JAO  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILM01	Test: M132.3.	0
Parameter SiRONTIUM	Result	Det. Limit	Units mg/kg

TIN ICP SW846-6010  Analysis Date: 06-AUG-91  Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M135.3.	0
Parameter TIN	Result	Det. Limit	Units
	BDL	MG/KG	mg/L

TITANIUM ICP SW846-6010  Analysis Date: 06-AUG-91 Prep: FAA OR ICP ACID DIGESTION OF S/S/S SAMPLE	Instrument: ICP S (CLP) ILMO1	Test: M136.3.	0
Parameter	Result	Det. Limit	Units
TITANIUM	72	1.0	mg/kg

PCB SONICATION EXTRACTION SW846-3550 Analysis D. FULP Analysis Date: 29-JUL-91		Toc++ D271-1	n
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	29.99		Grams
FINAL VOLUME	25		mL

POLYCHLORINATED BIP Analyst: L. JULIAN Prep: PCB SONICATION	•	Analysis Date: 04-AUG:91	Instrument: GC∕EC	<b>30</b>	Test: 0301.2.	Ö
	Parameter		Result		Det. Limit	Units
CB AROCHLOR 1016	· · · · · · · · · · · · · · · · · · ·		BDL		.08	mg/kg
B AROCHLOR 1221	ş ;	Willy Harding	ABDL ( )		.4	mg/kg
PCB AROCHLOR 1232			BDL	, *- <u>.</u>	.08	mg/kg
PCB AROCHLOR 1242	,	<i>y</i> ,	BDL	<i>6.7</i> 1 5.3	.08	mg/kg
PCB AROCHLOR 1248	· Ange		BDL	1	.08	mg/kg
PCB AROCHLOR 1254		the second of th	BDL	(	.16	mg/kg
PCB AROCHLOR 1260		,	BDL		.16	mg/kg
PCB AROCHLOR 1262			BDL		.16	mg/kg

Sample Comments

BDL Below Detection Limit

### APPENDIX E

SITE GEOLOGIC ASSESSMENT



### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

### **INDIANAPOLIS**

### FICE MEMORANDUM

DATE:

September 23, 1991

T0:

Mark Jaworski

Site Investigation Section

THRU:

FROM:

Billy E. Giles, Geologist BEN Site Investigation Section 10/191

SUBJECT:

Dugger Electric

Dugger, Sullivan County Geologic Assessment

### INTRODUCTION

The Dugger Electric Site is located at First and Main Street, Dugger, Sullivan County, Indiana. The site is in Section 1, T. 7 N., R. 8 W. The facility reconditions electrical transformers. Several hundred transformers are present on the site. A well on the site was found to contain an elevated level of PCB oil when sampled by the Indiana Department of Environmental Management. PCB oil was also found in a ditch that runs beneath the site, then flows through residential areas of Dugger, and discharges into Dugger Lake.

### SOILS

The soil on the Dugger Electric site is the Ava silt loam; a deep, moderately well-drained soil. Ava soils have a medium-textured surface layer and mainly a moderately fine textured subsoil. These soils formed on uplands in 30 to 55 inches of loess over material weathered from till. A fragipan begins at a depth of 22 to 34 inches. A typical profile of an Ava soil has an 11-inch surface layer of silt loam, dark grayish brown in the upper 5 inches and brown in the lower part. In the vicinity of the site, 3 to 6 inches of the original surface layer has been lost through erosion. The present surface layer is a mixture of the rest of this original surface layer and some of the yellowish-brown subsoil. The subsoil is about 44 inches thick. The upper 11 inches is yellowish-brown, friable heavy silt loam over light yellowish-brown, firm silty clay loam. The lower part is fragipan. The upper part of the fragipan is mottled, light brown-gray and yellowish-brown, firm silty clay loam, and the lower part is pale-brown and yellowish-brown, friable silt loam. The underlying material is brown to yellowish-brown, friable loam. Surface runoff is slow to medium and the available moisture capacity is medium. The organic-matter content is low. Permeability is slow. Hydraulic conductivity of the upper 22 inches is in the range of  $5 \times 10^{-4}$  to  $1.5 \times 10^{-4}$  $10^{-3}$  cm/sec, from 22 to 48 inches is in the range of 1.5 x  $10^{-4}$  to 5 x  $10^{-4}$  cm/sec, from 48 to 55 inches the range is 3.5 X  $10^{-5}$  to 1.5 X  $10^{-4}$ cm/sec, and from 55 to 100 inches the hydraulic conductivity ranges from 5 X  $10^{-4}$  to 1.5 X  $10^{-3}$  cm/sec. The surface layer is strongly acid; the pH ranges from 5.1 to 6.0 in the upper 22 inches, 4.6 to 5.5 from 22 to 48 inches, from 5.1 to 5.5 between 48 and 55 inches, and from 5.1 to 6.6 between 55 and 100 inches.

### **GEOLOGY**

The Dugger Electric site is located in an area where a relatively thin layer of unconsolidated glacial till overlies the Pennsylvanian sedimentary bedrock. Dugger is near the boundary between the Dugger Formation of the older Carbondale Group and the Shelburn Formation of the McLeansboro Formation above it. These rocks dip to the west toward the center of the Illinois Basin. The Dugger Formation, which at the site is either exposed at the bedrock surface or covered by only a thin layer of the Shelburn Formation is composed mainly of shale and sandstone units, but also contains four coal members and four limestone members. The type locality for the Dugger Formation is located two miles northeast of Dugger. The Shelburn Formation may be present at the bedrock surface beneath the site. The Shelburn is composed mainly of shale, siltstone, and sandstone, but also contains beds of limestone, coal, and clay many of which are thin and discontinuous.

Above the bedrock is approximately 20 to 50 feet unconsolidated sediments composed of Illinoian glacial till and loess. The site is south of the maximum extent of Wisconsinan glacial advance, but was covered by the earlier Illinoian glaciation. Thus, the till is more weathered than the till that covers the surface of most of the northern two-thirds of Indiana. Above the till is several feet of loess, a windblown silt deposit. The loess was derived from glacial outwash deposited by meltwater streams. The source of the loess in the Dugger area was probably the glacial sluiceway now occupied by the valley of the Wabash River.

### HYDROGEOLOGY

Surface-water drainage from the site is by way of a ditch that flows east to west across the site. Numerous storm drains on the site enhance the surface-water runoff into the ditch beneath the site. The ditch continues through Dugger and discharges into Dugger Lake approximately 1500 feet west of the site. Dugger Lake is a final-cut lake in an old coal surface-mined area on the southwest side of Dugger.

Well logs on file at the Division of Water, Indiana Department of Natural Resources show only two wells in the vicinity of Dugger, both northeast of town. However, numerous residential wells are known to exist in the community. These wells were probably installed before wells were required to be recorded with DNR and/or they are relatively shallow driven wells that have no logs recorded. The two well logs recorded at DNR are both bedrock wells that encountered bedrock at approximately 20 feet. The unrecorded wells in Dugger are probably completed in the unconsolidated material above the bedrock and are between 20 and 50 feet deep. The hydraulic conductivity of the unconsolidated material is probably in the range of  $10^{-6}$  to  $10^{-2}$  cm/sec in the sand and gravel deposits. The bedrock has a lower primary permeability, but fractures in the rock provide pathways for water movement. Solution features in limestone, which may be present in the area, can increase permeability significantly. Coal seams also are relatively permeable. most important pathway for ground-water movement in the area is the maze of underground mine shafts and tunnels that crisscross the area. These conduits can move water very rapidly compared to the natural flow through porous or fractured media. The flow direction from the site is probably to the southwest toward Dugger Lake. However, the impact of present and past mining activities can alter the flow direction.



### SUMMARY AND RECOMMENDATIONS

The Dugger Electric site has documented contamination of ground water beneath the site. Contamination could migrate from the site by way of a ditch which flows beneath the site and through the ground-water pathway by way of the 20 to 50 feet of unconsolidated material above the bedrock or by way of mine tunnels which are numerous in the area.

Recommendations for sampling include taking ground-water samples from the on-site well and from nearby residential wells and taking numerous sediment samples from the site and from the ditch between the site and Dugger Lake.

### REFERENCES

Kelly, Leo A., 1971, Soil Survey of Sullivan County, Indiana, U.S. Department of Agriculture, Soil Conservation Service, 73 p.

Shaver, Robert H., et al., 1986, Compendium of Paleozoic Rock-Unit Stratigraphy in Indiana - A Revision, Indiana Department of Natural Resources, Geological Survey Bulletin 59, 203 p.

### APPENDIX F

INDIANA DEPARTMENT OF NATURAL RESOURCES
WELL LOGS

DIVISION OF WATER
DEPARTMENT OF NATURAL RESOURCES, STATE OF INDIANA STATE OFFICE BUILDING INDIANAPOLIS, INDIANA 46204 Telephone 633-5267 Area Code 317
STATE OFFICE BUILDING INDIANAPOLIS, INDIANA 46204 Telephone 633-5267 Area Code 317
Telephone 633-5267 Area Code 317
WATER WELL RECORD
WELL LOCATION (Fill in completely Refer to instruction sheet)
County in which well was drilled Civil Township
Driving directions to the well location: Include County Road Names, Numbers, Subdivision Name, lot mumber, distinctive landmarks, etc.
go East on Huy 54 to Mugger Turn north at Rail-
road Crossing 3 Blocks then East 2/2 Blocks to.
Neigger, Ind. small Strip mine.
NAME OF WELL OWNER and/or BUILDING CONTRACTOR
Well Owner Address
U.S. Dept of Interior Gerliques Surgedoress Indiangula In.
Name of Well Drilling Contractor: - RE. VANGILDER WELL DRILLING
B.R. 24 BOX 511
IdressTERRE HAUTE, N. 47802
Name of Drilling Equipment Operator: PH : 299-2523
WELL INFORMATION
Depth of well: 70' Date well was completed: 10-15-79
Diameter of casing or drive pipe: 5" Total Length: 7/2
Diameter of liner (if used): Total Length:
Diameter of Screen: Length: 40
Type of Well: Drilled Gravel Pack Driven Driven Other Jest
Use of Well: For Home For Industry For Public Supply Stock
Method of Drilling: Cable Tools  Rotary Rev. Rotary  Jet  Bucket Rig
Static water level in completed well (Distance from ground to water level) 22 feet
Bailer Test: Hours Tested Rate 2 gp.m Drawdown is the difference
Pumping Test: Hours Tested Rate g.p.m. Drawdown ft. level at end of test)
Signature R. E. Van Delder
anguardo for the second

### DIVISION OF WATER DEPARTMENT OF NATURAL RESOURCES, STATE OF INDIANA STATE OFFICE BUILDING INDIANAPOLIS, INDIANA 46209

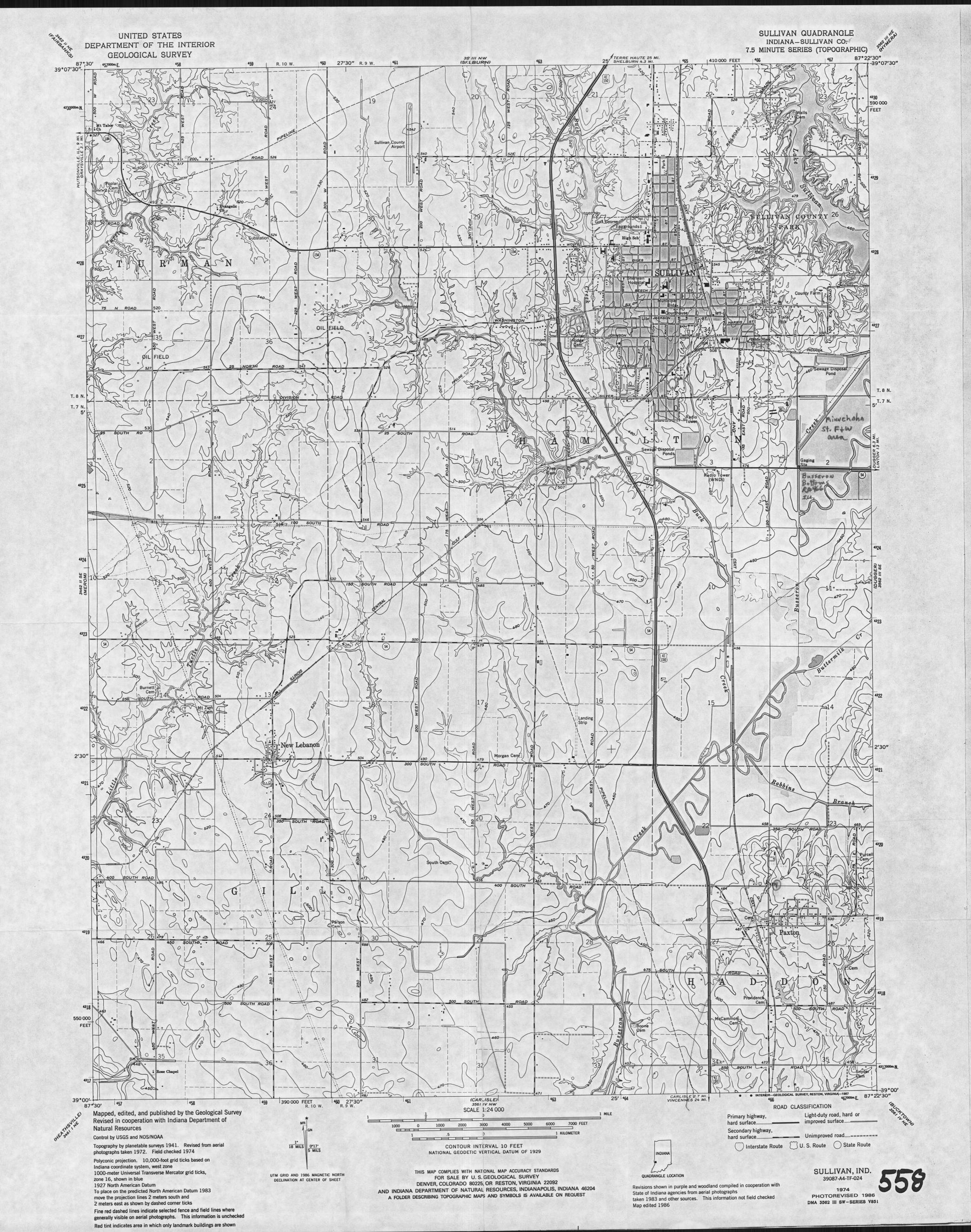
### WATER WELL RECORD

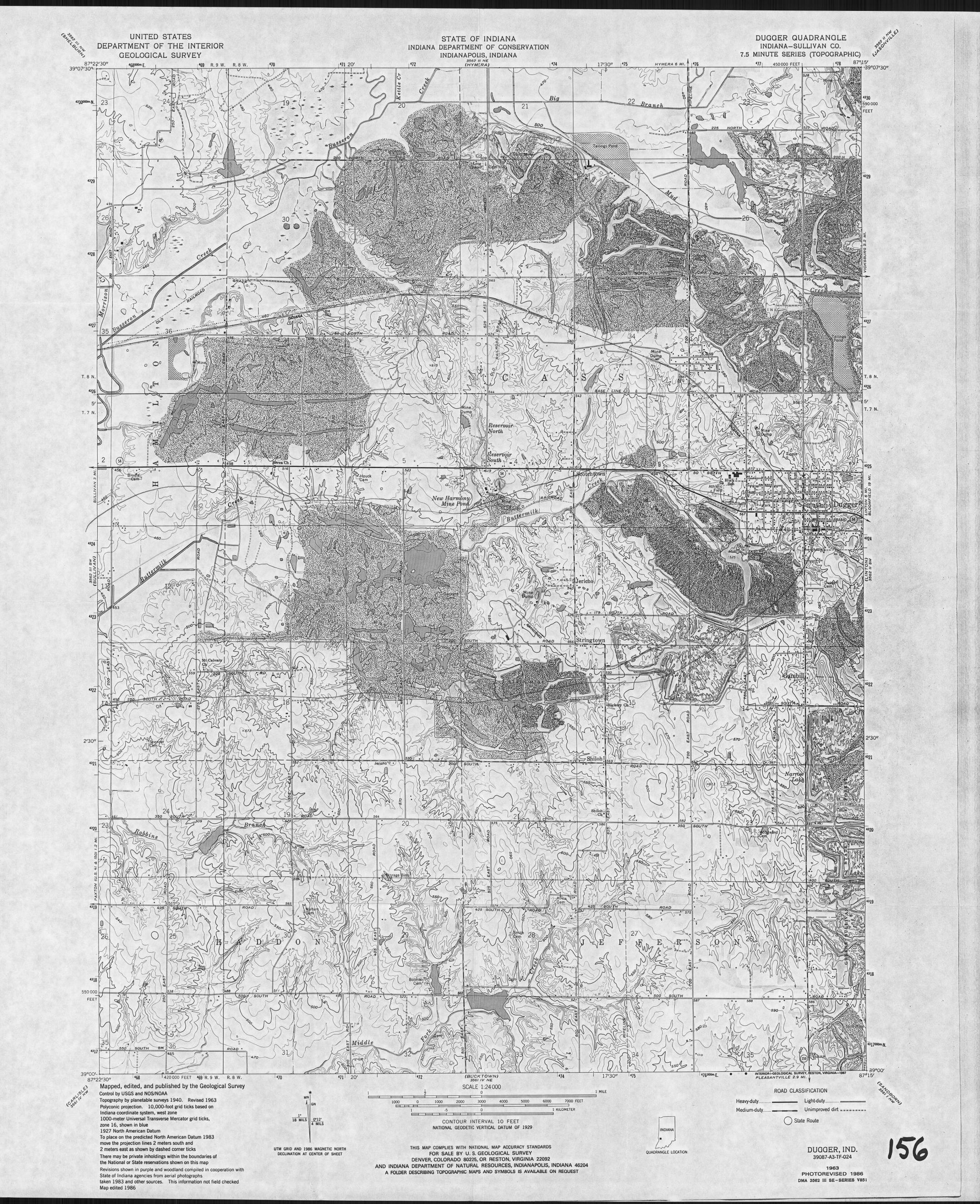
	INFORMATION ON WI	ELL LOCATION	
County in which well was dri	Med: Sullivan	Civil Townshi	p. Cass.
Congressional township:		Nu:	mber of section:
Describe in your own words t	the well location with	respect to nearby t	
or distinctive landmarks:	- 16 mules	and of	Dugger on
State 1			
Name of owner: Norm	ian Habites	Address: Boy	542 Dugger On
Name of Well Drilling Contra	^ ·		#10
falress:			inton Dud.
Name of Drilling Equipment C	Operator:	wil D. M	rajors
; -	INFORMATION O		V.,
Completed depth of well:	o ft. Date well:	was completed:	7-1-70
Diameter of outside casing of	or drive pipe: 8 -	Length	: 384
Diameter of inside casing or	· liner: 50)	Length	: 32 /
Diameter of Screen:	length:	Slot s	ize:
Type of Well: Drilled	Gravel Pack	Driven D Other_	
Use of Well: For home D	For industry	For public supply	Stock D
Method of Drilling: Cable	Tools   Rotary   B	lev. Rotary 🔲 🌙 J	et Driven
Static water level in comple	eted well (Distance fro	m ground to water 1	evel)ft.
Bailer Test: Hours tested	Rateg.p.m.		
Pumping Test: Hours tested	Rate g.p.m.		level at end of test)
	Si anota	re Droil	D. majorn
	- STEIR CU	77 1	

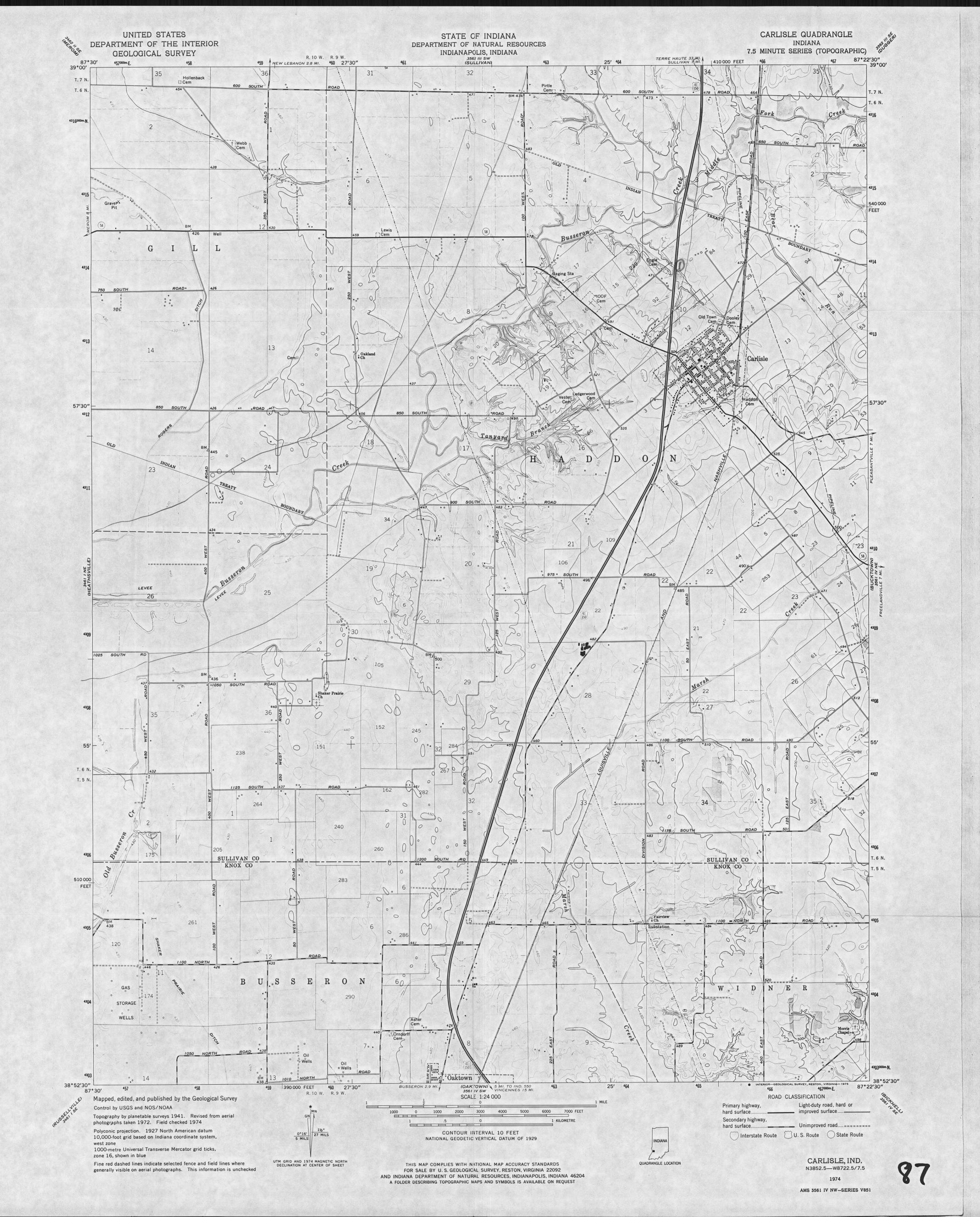
FOR WELL LOG SPACE USE REVERSE SIDE OF THIS SHEET

### APPENDIX G

SENSITIVE ENVIRONMENT INFORMATION







Cloyce Hedge Indiana Natural Heritage Program Division of Natural Preserves Indiana Department of Natural Resources

> Re: Sensitive Environments, Endangered Species, etc.

Dear Mr. Hedge:

Please send me information regarding endangered and/or threatened species, state land designated for wildlife or game management, and various other sensitive environments around the southwest sector of Dugger, Indiana. I am enclosing a copy of several topographic maps that depict the project area for which I am requesting the sensitive environment information. I have circled the project area. In addition, I am also enclosing a list of various types of sensitive environments for which I am requesting information on.

Thank You

Mark Jaworski

Site Investigation Section

Office of Environmental Response

MLJ/taj

Enclosure !3858s/taj

### ENDANGERED, THREATENED. AND MARE SPECIES AND HIGH QUALITY MATURAL COMMUNITIES AND NATURAL AREAS DOCUMENTED FROM AN AREA IN SULLIVAN COUNTY, INDIANA (SEE ATTACHED MAPS)

	Mao Symbol	Species Name	Common Name	State Status		Location	Date
	Ca	rlisle Gua	drangle				
	<b>#1</b>	CHRYSOPSIS VILLOSA	HAIRY GOLDEN-ASTER	ST		8 MI S OF SULLIVAN, US 41	1930
79	Ere.	gger Guadr	argle				
		TAXIDEA TAXUS SISTRURUS CATENATUS CATENATUS	BADGER EASTERN MASSASAUGA	ST ST	CS.	3 MI W OF DUGGER . NEAR DUGGER	1982 NO DATE
	GREENE-	-SULLIVAN STATE FOREST					
	=:	llivar Dua					
	#1		SLICK SEED WILD-BEAN	ST		ABANDONED FIELD 1/4 MI N	1933
						OF PAXTON	
	BUSSER	<u>ON BOTTOMS:</u> FOREST-FLOODPLAIN WET MESIC	WET MESIC FLOODPLAIN FOREST			HIGH QUALITY NATURAL AREA	1985
	MINNEH	AHA STATE FISH AND WILDLIFE AREA	·				•

STATE STATUS: SX=EXTIRPATED. SE=ENDANGERED, ST=THREATENED. SR=RARE, SSC=SPECIAL CONCERN. WL=WATCH LIST FEDERAL STATUS: LE=ENDANGERED, LT=THREATENED. C2=CATEGORY 2 (UNDER REVIEW, MAY POSSIBLY WARRANT LISTING)

Please note that the Indiana Natural Heritage Program relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Program. You may reach me at (317)232-4052 if you have any questions or need additional information.

Sincerely,

Cloyce L. Hedge Coordinator Indiana Natural Heritage Program

enclosures

CLH/mlm

CLOYCE - Ciny changes to me l'el then do final look good.

February 1, 1991

Mark Jaworski
Site Investigation Section
Office of Solid & Hazardous Waste
Indiana Department of Environmental Management
Chesapeake Building
105 S. Meridian Street
P.O. Box 6015
Indianapolis, IN 46241

Dear Mark:

I am responding to your request for information on the endangered, threatened, or rare (ETR) species and high quality natural communities and natural areas documented from an area in Sullivan County, Indiana. The Indiana Natural Heritage Program's databank has been checked and enclosed you will find a list of ETR species and areas documented from three quadrangles.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. You should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service 718 North Walnut Bloomington, Indiana 47401 (812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal. Please refer to the enclosed Environmental Review Suidelines. For more information, please contact:

Patrick R. Ralston, Director Department of Natural Resources attn: Steve Jose Environmental Review Coordinator 605 State Office Building Indianapolis, IN 46204 (317)232-4070

### APPENDIX H

### PREVIOUS SAMPLING ACTIVITIES

### DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

### **INDIANAPOLIS**

### OFFICE MEMORANDUM

DATE:

May 15, 1991

TO:

Marlene Mathas State Cleanup 1

REL 20 JAI RA: 40 DEL OF FUATKO: MOUNT

THRU:

Manuela Johnson Tho

Rod Thompson (5) 6/5/9

PROM:

Jawad Syed

Chemistry Section

SUBJECT

Review of Lab Results for Dugger Electric

Dugger, IN

Sample Numbers: Date Collected: March 22, 1991

RK4697-RK4705

Analyzed by:

EMS Heritage Labs

I have reviewed the attached laboratory results and have determined that they are acceptable for use. These results have been evaluated for the quality criteria contained in the Indiana Laboratory Broad Agency Announcement (9/1/90). Any exceptions to the acceptance of this data will be identified in this memorandum and should remain attached to the original results.

Field duplicate samples are used to establish the representativeness of the sampling (i.e., sampling error and/or sample homogeneity). The field duplicates compare well.

Soil and water samples collected from Dugger Electric site were substitued for polychlorinated biphenyla (PCBs) analysis. pahelated results of analyses are on the attached page.

JS/mg

### Dugger Electric, Dugger, Indiana RK4697-RK4705

### Soils

### Water

Sample # PCB 1260

Sample # PCB 1260

RK 4697	Non-detect	RK 4697	Non-detect
RK 4698	Non-detect	RX 4698	Non-detect
RK 4699	0.036 ppm	RK 4699	0.00035 ppm
RK 4700	1.0 ppm	RK 4700	0.023 ppm
RK 4701	3.4 ppm	RK 4701	0.0020 ppm
RK 4702	1.0 ppm	Rk 4702	0.00064 ppm
RK 4703	Non-detect	RK 4703	0.00044 ppm
RK 4704	Non-detect	RK 4704	0.00043 ppm
	La ser y	RK 4705	Non-detect

### ENVIRONMENTAL MANAGEMENT CONTRACT LABORATORY USE ONLY OWM USHWM OAM IDEM CONTROL ATEL RK 4217 Pana - EU 4 70 S 1 ullestur Lab Suniple # (s): -\_\_\_ I \ Site His Section DEO SCII Thin Water "Carited Bute Fish 3 TASK I () $\mathbb{R}^{t}$ SE (LAD) and fiterable herrove 104 ALL allar falal Pusique (TS) of miners Control Conductions Antimon-Tal O ganic a bung fluis DETINE. Later Organiz Halogen (TQA) Levelium Manynt . 1456 4 Botos Eyamice ulmusm Sulfide altourn hromiuni in Pash J ABCDEFG Desaillian. Sauce 1458 6 A 8 Iron raid ... Mapan Com LASK 7 A 8 C Marghantie lemas Holy Milengel 014.09 PASS = Casoling O Oleret adom. 135E 0 911 halingere ign t b ly 8 allaborer maner . Crigalities. COHOSIVILY . OH Cyanide Realtive Clanice foral TASK 2 A 1) Suit de Reactine auliae ford migrate Catellarmy Feral FASK III Histories es all'Oli histories escall'Oli histories Americani (1944 a HT) histories Militale e ausgesté du histories Van alland HT Colliorms Total E East 1 646 548 5 45 C 845 4 SAS Secretary and the Trans henoly Told Physophiae 2K46975 KL 4765 5 Sullate

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Markette and A special distance.		
Please send	Na III	COMMENIS:
	IDEM Program OER	ARROADED THE ALGORITHMS ARROADED TO THE STATE OF THE STAT
	Street: Brabbag	
	City of Town Ind	

100 0000

10 ppm



### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

		ow	M				SHIV	М	$\searrow$	OE	R	OAM
						HA	IN O	F CUST	OD	Y.		
	announce and bear			a4 07	N= 26 4.	n my p	full (u.)	The state of the s	- Control of the Cont		Date .	3 122 191
LAB SUMBER ASSIGNED	DEM	CONSISTING OF THE INDICATED NUMBER OF BOTTLES									DATE COLLECTED AND TIME SEALED	
	NUMBER	2000 r.d	1000 to M	1000 H	SOU nut	40 ml	la 26.			and other state of the state of		AND THE SERVER
	RK 4697			2	2							3 122 91 4 CO ANPM
	RKHEME			2	12							31229, 4 1 BAN
	PK 4648	1	and the same of th	2	1		1					3 122 71 9 4 (AT9/PM
	XK 4700			1	16		1					3/21/91 10 05 QUPM
	EK 4761	Manager		2	12				77100			3-122 41 10-55 DIPM
	BK 4702			2	12				The second second second			3 /22/4 11 15 ATPH
	AK 4703	1		2	2		1					3 42 11 11 40 (MPM
	RK 4704			2	12							AMIES AMIES
	RK 47PS			2	2				1	-		3 22/4, 9 30 ASDPH
	-	1			10	1_			-			/ AM/YW
	-			MAN	1 10	10		-		at the statement		AM/PM
	nagaging the photograph of the latest		1	3	2	13%						/ / AWARM
P	Plastic	G G	1255		N	W N	MISN'S	. Luin		W Ns -	Wide M	outh #10 Bacti Only
certify that I in	ce) and the above sa	mples		Mining of the second			CARE	RIERS	Sales Sales and Garage			and any equipment of the state
	SIGNA	TURE					D	AFE AND			ALS ACT	COMMENTS
RELIMMUISH	ET BY 1 2-2-	E.	24	- Library			3		- 11 Y		44	mad the section
HECKILED B	Lane /	20	Jan J.			-	4	12 4WE	9	Table of the second		164 - F-11 tr 6- 5
RELINQUISHED BY.		-		100000000000000000000000000000000000000	-	Y	N					
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RECEIVEDRY				Marie de Marie de Proposition	AM/P	M		-				
HELLHQUISH	the same of the sa		-	-	polysti in. spentin	-		atresews.	.	Y	N	
RECEIVED	T I I I I I I I I I I I I I I I I I I	-	-	-				AM/P	7	on my at hat had been been been been been been been bee		THE PROPERTY OF THE PARTY OF TH
KILL QUIST			-				and the same of th	/		Y	N	
RECLIVEDBY						AM/PM		-		The same of the sa		

### LAB CUSTODIAN

OCT 30 'SI GOLDE (CET OF EINTING HOW)

(WORST CASE):

PAGE	OF	11
		-

G. T. 158

## OFFICE OF SOLID AND HARARDOUS WASTE MANAGEMENT OFFICE OF ENVIRONMENTAL RESPONSE SITE INFORMATION

SITE NAME: Depte Clarter			der Total der Reference de State de La Constantina de La Constanti	-
IDEM CONTROL #51 RK 4647 . R				-2
SITE LOCATION (CITY, COUNTY):	Layer, EN	Cara G		
CONDITIONS: Sky				
COLLECTORS: Dea & K				
Container Total #	ACCEPTING	SLABORATORY: E	*1.7	•
1 L Plastic	ADDRESS:		40° 1 51 T	Adampeter
1 L Glass 22 A-4.			PHONE:	
500 ml Glass 22 A - 1	CONTAINE	A SOURCE: I PE		
40 ml Vials		SAMPLE ICEO?	Yes Yes	□ No
Other:		PRESERVATIVE USED?	☐ Yes	₩ No
SAMPLE TYPES ( CIRCLE): Mon. Well	Lagoon		lsh	Indus. Wast
Leachate Soil	Waste Pile	Cn	ek	Dit
Sludge Solvent	Solia	Liqu	iid -	0
Sand Drummed Waste	Truck	Res. W	'eil Oti	le/
IAMPLE PLAN REVIEW: Qrab) comp INFORMATION ON EQUIPMENT USED, FA  CORP. DECONTAMINATION PROCEDURES USED:	OLITY TYPE, PRO	DUCTS MADE, ETC.:	<u>Lepin Lland</u>	
EQUIPMENT IS (BEDICATED ) DECONTAMINA			,	
SOURCE OF BLANK REAGENT WATER:	W. Engineery	And the second second	and appropriate to the second	
MISCELLANEOUS:		PHOTOS TAKEN?	☐ Yes	₩ No
PROGRAM AREA: RCR	4	CERCLA	SOLID WAS	TE LUSTIUS
PURPOSE: State Cleanup Site   Complaint	Compliance	Enforcem	ent Ot	
CONSTITUENTS EXPECTED: PCB				
RESULTS DUE BY:		HANDLING PRECAUTION	? Yes	□ No
APPROXIMATE CONCENTRATIONS				

5 %

L. T. 10 ppm

100ppm

10%

1000ppm

### DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT OFFICE OF ENVIRONMENTAL RESPONSE SITE MAP

SITE NAME:	Program Elaboria		
SAMPLE I.D.	55/5w-1 -> 55/5w - 7	IDEM CONTROL NO & K	4697 - RK4705
SAMPLE DATE:	3 1 24 1 91	. 9 00 (AM)	PM
MAP:			
			1
			N

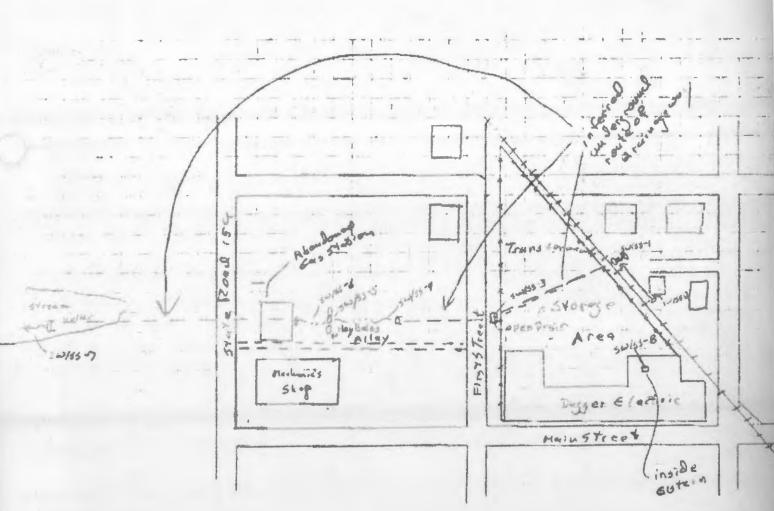


Figure 2 Location of site feedures
and sumplies points at Dyger
Clastic

# DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT OFFICE OF ENVIRONMENTAL RESPONSE SAMPLE FIELD SHEET

	er I.					Address of the supplemental of the supplementa	
SAMPLE ID:	55/5W	- 1	IDEM CONTROL #	RK 469	7		
	Id You	-	SAMPLE TYPES ( CI	SAMPLE TYPES ( CIRCLE ALL APPLICABLE):			
Per	d Test formed	Result	Mon Well	Lagoon	Ash	Indus. Wasti	
	-		Res Well	Leachate	Soil	Waste Pil	
-			Creek	Oil	Sludge	Sali	
			Ortch	Solvent	Sand	Liqui	
			Truck	Drum	Other	Part Control of Contro	
	<sup>Alg</sup> ongen amulimi Allin		Blank (Equip./Trip)		Duplicate	(of	
			Background				
SAMPLE DATE:	3 / 122/	911	TIME: 9.0	AMIPM			
Container Type	# 0	f Containers	<u>Preservatives</u>		Lab/Lot	Number	
1 L Plastic	<.p>4.00000000000000000000000000000000000		H2504 (509	6)			
1 L Glass	2	Amber 417	1HN03 (con	ec.)			
500 ml Glass	al	Amber co	80045 NaOH (509	6)	-	The second secon	
40 ml Vials	-		Zn Acetate	(2N)			
	min. Alliant Market		(Sample Iced )				
			No preservative				
ADDITIONAL SAM	IN ELOCATION IN	EOBMATION.	non-aqueous sa				
MUDITIONALSAM	PLELOCATIONIN	PURIMA LIDAL	No.				
		-44	Pande Silve Va			Tide Mai	
ADDITIONAL SAME	LE TYPE INFORM	ATION AND OBS	ERVATIONS: (depth taken,	color, odar, size	e, clarity, den	sity,	
uspended solids, co			- where we form				
					Marie Addition		
	Name of the last o						
FOR WELL SAMPLE	ES: Well Pura	ed (less   preater)	than (1 2 4 5 12 24	48) hours prior	to sampling		
M	٨						
7.1.	n Purged ap	proximately (to d	ryness) (1 2 3 4 5 8	10 G T 10 W	ell volumes)		
	M SAMPLING PLA	N: A/AA					
DEVIATIONS FROM		The same of the sa				Many or the	
			(5)				
	MENT USED:	Ata dasc.	Iteal be I e year	4.	annalism - magher agramma at the manifest in the addition in	and the second of the second o	

### DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT OFFICE OF ENVIRONMENTAL RESPONSE SAMPLE FIELD SHEET

	55/54 12		IDEM CONTROL #: RIS 4499			
	i Test ormed	Result	SAMPLE TYPES ( CI Mon Well Res Well Creek	RCLE ALL APPL Lagoon Leachate Oil	ICABLE); Ash Soil Sludge	Indus. Waste Waste Pil
supportunitation description from the second	delenante de la constitución de		Ditch Truck Blank (Equip./Trip) Background	Solvent Drum	Sand 'Other:	Solid Liquid
SAMPLE DATE:	3 /22 / 9	1	TIME: 9:11	_ MPM		
Container Type  1 L Plastic	# 01	Containers	Preservatives H <sub>2</sub> SO <sub>4</sub> (50%	6)	Lab/Lot A	<u>lymber</u>
1 L Glass	<u> </u>	Ander 4114013	1HNO <sub>3</sub> (con	c.)		
500 ml Glass	3	Amber 0.80043	NaOH (50%	6)		
40 ml Vials	- manhanan	and the same of th	And the second second	(2N)	erondettillided of normanie	
ADDITIONAL SAME	LE LOCATION IN	FORMATION:	No preservative non-aqueous sai			
	ETYPEINFORMA	TORMATION:	No preservative non-aqueous said	mples rolar, adar, size		
DOMINAL SAMPLE	ETYPE INFORMA Bloidal, etc.)	TTON AND OBSERVA	No preservative non-aqueous said	color, ador, size claus, p	to sampling	-
DOMIONAL SAMPLE	E TYPE INFORMA  Iloidal, etc.)  Well Purge  Purged app	TON AND OBSERVA  Librariles (1.6., 6.)  d (less/greater) than  proximately (to drynes	No preservative non-aqueous said	color, ador, size claus, p	to sampling	-

### CERTIFICATE OF ANALYSIS

Service Location	Received	Lab D
EMS HERITAGE LABORATORIES, INC.	22 MAR-91	Ac26264
72901 W. MORRIS ST.	Complete.	PO Numbe
INDIANAPOLIS, IN_46231	15-APR-91	90607684-540
(317)243 8305	Printed	Sampled
	16-APR-91	22-MAR-91 09:00

Report To

INDIANA DEPARTMENT OF ENVIRONMENTAL MOT MONIQUE HINTERBERGER
P O BOX 6015
INDIANAPOLIS IN 45206-5015

Bill To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206 6015

Sample Description

DESCRIPTION IDEM GENERAL IDEM CONTROL NO : RK4697 W

PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510

Analyst: _ : 208020	Analysis Date: 25 MAR -01		Test: P230.1	. 8
INITIAL WEIGHT OR VOLUME		880 5	Det. Limit	Units mL mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Prep: PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510

		Parameter	Result	٥	or Dinner	BALLA
PE6	AROCHLOR 1016		BD_		0.0001	mg/L
PCB	AROCHLOR 1221		, BDL		0.0005	mg/L
PCB	AROCHLOR 1232		BDL		0.0001	mg/L
PCB	AROCHLOR 1242		BDL		0,0001	mq/L
POB	AROCHLOR 1248		BDL		0.0001	mg/L
PCB	AROCHLOR 1254		BDL		0.0001	mg/L
	AROCHLOR 1260		BOL	1	0.0001	mg, L

Sample Comments

RDL Below Detection Limit

HaBuck

EMS HERITAGE LABORATORIES, INC.

Lab Sample ID: A226264

LIST OF COMPLETED TASKS

GC IDEMR GC IDEM RCRA

Completed:15-APR-91

### CERTIFICATE OF ANALYSIS

Received Lab 10 Service Location EMS HERITAGE LABORATORIES, INC. 22-MAR-91 A226205 7901 W MORRIS ST Comp ete PO Number INDIANAPOLIS, IN 45231 1317)243-8305 15-APR-91 90607684-540 Printed Samplea 16 APR-91 22 MAR 91 09:15

Report To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. MONIQUE MINTERBERGER P.O. BOX 5015 INDIANAPOLIS, IN 46206-6015

BILL To

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Destription

DESCRIPTION: IDEM GENERAL IDEM CONTRO! NO. RK4698 W

PCB SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510 Analysti L. DORBLAS Abdivisio Date: 25 MAR VI lest: P250. 1. 0 yel Int I Int Parameter Result

INITIAL WEIGHT OR VOLUME 870 mi FINAL VOLUME mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analysis Date: C1-APR-9) Instrument: CC/ECO Test: 0301.2. 0 Acet set A. HOAGLAND Prep: PCB SEPARATORY PUNNEL LIQUID LIQUID EXTRACTION SW846-3510

Parameter THE LIBER MALE PCS AROCHLOR 1016 BDL 0.0001 mg/L PCS AROCHLOR 1221 0.0005 | mg/L BDI PCE ARDCHLOR 1232 0.0001 mg/L FCB AROCHLOR 1242 BUL 0.0001 mg/L PER AROCHLOR 1248 BDL 0.0001 mg/L MCB AROCHLOR 1254 0.0001 mg/L 0.0001 mg/L PCB AROCHLOR 1260 BDL

Sample Comments

BDL Below Detection Limit

Quality Assurance Officer: Habusel

### CERTIFICATE OF ANALYSIS

Service Location

EMS HERITAGE LABORATORIES, INC.

901 W MORRIS ST.

INDIANAPOLIS, IN 46231

[317)243-8305

Received	Lab D
22 MAR 91	A226273
Complete	PC Number
15-APR 91	90607684-540
Printed	Samp ed
10-APR-91	22 MAR-91 09:00

Report In

MONIQUE WINTERBERGER
P.O BOX 6015
INDIANAPOLIS, IN 46205-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET

BILL To

INDIANAPOLIS, IN 46206 6015

Sample Description

DESCRIPTION: IDEM GENERAL IDEM CONTROL NO : RK4697 S

PCB SONICATION EXTRACTION SW	846-3550 Amaiyali Dare: 25-MAR-91	Year- P251_1_0
INITIAL WEIGHT OR VOLUME FINAL VOLUME	16.94 50	nor eines units Grams mL

PULYCHLORINATED BIPHENYL	S (PCBS) SW846-8080		
Prep: PCE SONICATION EX	TRACTION SW846-3550	Instrument Tay 600	149 K; Q301 Z; J
Surviva Contract Cont			1

	THE RESERVE THE PARTY NAMED IN COLUMN TWO IS NOT				
		Parameter	Retuit	Det Linit	MOY Ta
RUB	AROCHLOR 1015		BDL	0.20	mg/kg
	AROCHLOR 1221		80).	1.00	100
	AROCHLOR 1232		BDL	0.20	47
PLB	AROCHLOR 1242		BDI.	0.50	mg/kg
PCB	AROCHLOR 1248		BOL	0.20	t mg/kg
	AROCHLOR 1254		8DL	0.20	
	AROCHLOR 1260		BOL	0.20	
PCB	AROCHLOR 1262		BDL	0.20	mg/kg

Samp e comments

BOL Below Detection Limit

MRusch

### CERTIFICATE 0 F ANALYSIS

Service Location	Received	Lab ID
EMS HERITAGE LABORATORIES, INC.	22-MAR-91	A225274
901 W MORRIS ST.	complete.	DO summer
MOTANAPOLIS IN 46231	15-APR-91	90607684-540
17)243-8305	Printed	Samples
	16 APR-91 '	22 MAR-91 09-15

Report To

INDIANA DEPARTMENT OF ENVERONMENTAL MGT. MONIQUE HINTERBERGER P.O. BOX 6015 INDIANAPOLIS, IN 46206-6015

8111 15

INDIANA DEPARTMENT OF ENVIRONMENTAL MOST. CARLA HATTON P.O. BOX 6015 105 SOUTH MERIDIAN STREET INDIANAPOLIS, IN 46206-6015

Sample Description

DESCRIPTION: IDEM GENERAL IDEM CONTROL NO : RK4598-5

PLB SONICATION EXTRACTION 5	W846-3550			
THE YEAR OF RESERVE	American Dates 25 Mar-Et		Test (1881)	
WETTAL WEIGHT OR VOLUME		15 16 deaunt	- Detalimet	units Crams
FINAL VOLUME		50		mŁ

PER DONICATION EXTRACTION SHREE-3550	AND OT CONTRACT OUTSING	Testy 550 (1)
Par mutor	RESULT	Bet int
HCR AROCHIOR 1016	BDL	C 20 mg

Ran Imagine	Result	Live	INIT UNITS
RCH AROCHLOR 1016	- BDL		0.20 mg/kg
AROCHLOW 1221	HI)L		1.00 mg/kg
MGR AROCHEDA 1232	BDL		0.20 mg/kg
PLB AROCHLOR 1242	BDI.		0.20 mg/kg
PK.B AROCHEDR 1248	18D0		D 20 mg/kg
PCB. AROCHLOR 1254	BUL		0.20 mg/kg
PCB AROCHLOR 1250	80		0.20 mg/kg
PER AROCHEOR 1252	BDL		0:20 ratka

Sava or Con cotto

Au Below Dotection Lim 1

Quality Assurance Officers Habusch